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ANNUAL REPORT

OF THE

Department of Public Health

PROVINCE OF ALBERTA

INCLUDING

Vital Statistics Branch

1949

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

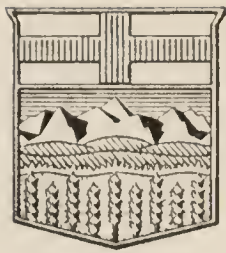
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Edmonton, December 30, 1950.

TO HIS HONOUR,

J. J. BOWLEN,

Lieutenant Governor of the Province of Alberta.

SIR:

I have the honour to transmit herewith, the Annual Report of the Department of Public Health for the year 1949.

I have the honour to be, Sir,

Your obedient Servant,

WALLACE WARREN CROSS,

Minister of Health.

Edmonton, December 30, 1950.

TO THE HONOURABLE DR. W. W. CROSS,
Minister of Health,

Administration Building, Edmonton, Alberta.


SIR:

I have the honour to submit herewith, the Thirty-first Annual Report of the Department of Public Health.

I have the honour to be, Sir,

Your obedient Servant,

MALCOLM R. BOW, B.A., M.D., C.M., D.P.H.,
Deputy Minister.



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THIRTY-FIRST ANNUAL REPORT OF THE
PROVINCIAL DEPARTMENT OF PUBLIC HEALTH
INCLUDING THE VITAL STATISTICS BRANCH

Divisions:

1. Communicable Diseases.
2. Entomology.
3. Cancer Services.
4. Public Health Education.
5. Nutrition.
6. Public Health Nursing.
7. Social Hygiene.
8. Provincial Laboratory.
9. Sanitary Engineering and Sanitation.
10. Hospital and Medical Services.
11. Tuberculosis Control and Central Alberta Sanatorium,
Calgary.
12. Mental Health.
Institutions: Provincial Mental Hospital, Ponoka.
Provincial Auxiliary Hospital, Claresholm.
Provincial Auxiliary Hospital, Raymond.
Provincial Mental Institute, Oliver.
Provincial Training School, Red Deer.
Guidance Clinics.
Eugenics Board.
13. Vital Statistics.

A report containing a summary of the work of each of these Divisions is included herewith.

PROVINCIAL BOARD OF HEALTH

Six meetings of the Provincial Board of Health were held during the year.

In addition to the above, the Provincial Board of Health met on April 8th for the purpose of a "Hearing Respecting Water Supply for the Town of Blairmore". This hearing, conducted under authority of Section 12 of The Public Health Act, was concerned with alleged pollution of the town's water supply due to the operation of strip mines.

REGULATIONS PASSED DURING THE YEAR

O.C. 879-49—Regulations for the Prevention, Notification and Control of Communicable Disease amended to provide the following:

- (a) Influenza (Epidemic) added to the list of notifiable diseases.
- (b) Permit the Provincial Board or a Local Board to require medical examination of persons who might spread the disease.
- (c) Permit the Provincial Board or a Local Board to isolate or quarantine persons where this action is deemed necessary to prevent the spread of communicable disease whether a

quarantine or isolation period is provided elsewhere in the regulations or not.

O.C. 922-49—Dental Regulations amended so that references to The Public Health Act would refer to the correct sections.

LEGISLATION PASSED DURING THE YEAR

An Act to Incorporate the Associated Hospitals of Alberta, Amendment Act (Chapter 16).

This Act amends an Act to incorporate The Associated Hospitals of Alberta, being chapter 22 of the Statutes of Alberta, 1948.

Section 6 is amended. The Blue Cross Plan which is dealt with in this Act covers the furnishing of hospital care by The Associated Hospitals of Alberta. The words "medical care" appearing in section 6 should have been the words "hospital care" and the error is remedied by this amendment.

This Act came into force on March 29, 1949.

Chiropractic Act, 1945, Amendment Act (Chapter 22).

This Act amends The Chiropractic Act, 1945, being chapter 16 of the Statutes of Alberta, 1945.

Section 10 is amended. The 1945 Act increased the qualifications required of chiropractors and the new qualifications were made applicable to all future applicants with certain exceptions. One of the exceptions was set out in subsection (5) which provides that a person who was prevented from changing his occupation by a regulation made under the provisions of the War Measures Act (Canada), who applied for admission to a school of chiropractic within six months after the coming into force of the new qualifications, and who commenced to attend the school within two years from the date of his release from the occupation which he was prevented from changing could qualify under the former standards. The subsection requires such a person to apply to the school within six months and to commence attendance within two years. Cases have arisen where such persons in good faith commenced to attend the school within the required two years and have completed the necessary training, but because their application was not in within the six-month period they are now barred from admission. Subsection (5) is amended by changing the six-month period to two years which brings these persons within the provisions of the Act and enables their admission to the Association.

Subsection (6) of section 10 is also amended by providing that the special privilege under subsections (4) and (5) will not be available later than the thirty-first day of December, 1949.

A new section 12a is added immediately after section 12. This new section enables the Board in its discretion to grant a non-participating life membership in the Association to any member who has attained the age of sixty years and who has practised in Alberta as a member of the Association in good standing for at least five years, and who in the opinion of the Board is a fit and proper person. Any member who has attained the age of sixty years and who has practised in Alberta for at least ten years may make application to the Board for a non-participating life membership. Any member who has been granted a non-participating life membership shall be deemed to be registered as a non-participating

member of the Association without filling any renewals of registration or paying the regular fees. The Board in its discretion may cancel any non-participating life membership for any act of misconduct or for any other proper cause.

A new section 26a is added immediately after section 26. It enables the Board, with the approval of the Association, to make reciprocal agreements with other jurisdictions governing the admission to Alberta of persons qualified to practise in those other jurisdictions. Such an agreement may only be made if the qualifications in the other jurisdictions are equivalent to the qualifications in Alberta. The agreement itself may make provision for the admission to Alberta of persons who were qualified to practise in the other jurisdiction when qualifications were lower than they are at present. In such case the agreement may provide for additional terms and conditions governing their admission such as requiring a certain number of years of practice, etc.

This Act came into force on March 29, 1949.

Hospitals Act Amendment Act (Chapter 49).

This Act amends The Hospitals Act, being chapter 184 of the Revised Statutes of Alberta, 1942.

Section 2(e) which defines the term "local authority" is amended. The former reference to the Minister of Lands and Mines has been taken out and the Minister of Municipal Affairs has been substituted. This change is necessary because the administration of special areas has now been transferred from the Department of Lands and Mines to the Department of Municipal Affairs. It is also amended to define the Minister of Public Welfare as the local authority with respect to any transient person.

Section 5(3) is amended by striking out Rule 3 and substituting a new draft of Rule 3. Rule 3 is one of the rules for determining residence of persons applying for material aid or hospitalization, etc. Rule 3 determines who qualifies as a transient person for purposes of hospitalization. Rule 3 in this Act is amended to correspond exactly with the equivalent rule in the three Municipal Acts. Any person who has not resided for twelve months out of the twenty-four immediately preceding months within a municipality is deemed to be a transient for whom the Minister of Public Welfare is deemed to be responsible.

Section 5(5) is amended. This section provides that the local authority is liable to pay a hospital for the treatment of indigent sick residents of that local authority in cases of sudden and urgent necessity if the hospital notifies the local authority by a notice in writing. The purpose of the amendment is to require the hospital to send the notice within ten days of the date of admission of the indigent sick person and the notice is to be sent to the local authority named by or on behalf of the indigent sick person as his place of residence.

Section 6 which relates to the liability of local authorities for hospitalization is amended by increasing the limitation in subsection (4) from two hundred dollars to three hundred dollars. The effect of this amendment is that the local authority will be liable to pay to the hospital up to a maximum of three hundred dollars per year for the care and treatment of any indigent sick person hospitalized.

Section 7 is similarly amended by changing the words two hundred to three hundred dollars.

This Act came into force on March 29, 1949.

Lloydminster Hospital Act Amendment Act (Chapter 61).

This Act amends The Lloydminster Hospital Act, being chapter 19 of the Statutes of Alberta, 1948.

Sections 42 and 46 of the Act are amended so that instead of it being necessary to post the notices referred to in at least two widely separated places and in all post offices, it is now necessary to post the notices in at least three widely separated places in each polling division.

This amendment is rendered necessary by the ruling of the Postmaster-General that the consent of a Post Office Inspector must be obtained before a notice may be posted in a post office. This consent cannot always be obtained so the mandatory requirement is being removed from the Act.

This Act came into force on March 29, 1949.

Maternity Hospitalization Act Amendment Act (Chapter 63).

This Act amends the Maternity Hospitalization Act, being chapter 9 of the Statutes of Alberta, 1944.

Section 5 of the Act is amended. Under section 5 a woman is entitled to free maternity hospitalization if she has been a resident of the Province for twelve months out of the twenty-four months immediately preceding her admission, and is a resident at the time of her admission. Many cases have arisen where a man, who is a resident of the Province, marries a woman who is not a resident of the Province. If a child is born before the woman has resided in the Province for twelve consecutive months the husband will have to pay for her hospitalization, notwithstanding that he himself has resided within the Province all his life. The purpose of this amendment is to extend the scope of the free maternity hospitalization to cover such cases.

This Act came into force on March 29, 1949.

Municipal Hospitals Act Amendment Act (Chapter 70).

This Act amends the Municipal Hospitals Act, being chapter 185 of the Revised Statutes of Alberta, 1942.

Section 2, paragraph (1), which defines "ratepayer" is amended to include a person who pays a business tax.

Section 7 is struck out and a new section is substituted which enables the Minister to fix and allocate the number of members of the board of the hospital district upon its establishment. Under the Act at present every municipality, any part of which is included within a hospital district, is entitled to be represented by a member on the hospital board. In some municipal hospital districts which contain a number of small villages and municipalities, the membership on a board is growing very large and unwieldy. Also, in some cases where only a small portion of a municipality is contained in a municipal hospital district the member of the board representing that municipality may draw more fees for mileage and expenses than the total amount of the contribution by the municipality to

the municipal hospital district. The amendment to section 7 is for the purpose of removing the necessity of allocating to each municipality a member to represent it on the municipal hospital board.

Section 11 is amended by the addition of a new subsection (3). This new subsection is exactly the same as the old subsection (3) which was struck out in 1945. The new subsection provides for a scheme in which there is provision for a minimum annual hospital tax commonly known as a poll tax, to be paid by all persons twenty-one years of age gainfully employed who are resident in the municipal hospital district, and who are not ratepayers. Any person paying the poll tax is entitled, in the year in which he pays, to the benefits conferred upon a hospital supporter by The Municipal Hospitals Act.

Section 61 is amended by striking out subsection (1) and by substituting two new subsections. These new subsections enable the Minister, on the recommendation of any board, to reduce, increase, or re-allocate the number of members of that board. Any included area which has not been allocated a board member is required to be combined with some other included area, and the combined area will be represented by a board member.

The effect of these amendments is that the board of any hospital district which has become large or unwieldy in size may be reduced to an efficient size. Unnecessary expense will be avoided and all persons in a municipal hospital district will be represented by an elected board member. Where small portions of several municipalities are included in a municipal hospital district they may be combined and have one elected member to represent them.

This Act came into force on March 29, 1949.

Nursing Aides Act Amendment Act (Chapter 72).

This Act amends The Nursing Aides Act, being chapter 18 of the Statutes of Alberta, 1947.

A new section 13a is added so that the Act does not apply to those who render spiritual services only.

This Act came into force on March 29, 1949.

Public Health Act Amendment Act (Chapter 80).

This Act amends The Public Health Act, being chapter 183 of the Revised Statutes of Alberta, 1942.

Section 25 of the Act is amended by the addition of two new subsections (17) and (18). Subsection (17) provides that the Lieutenant Governor in Council may vary the order constituting a health unit by a further order, at any time, with the consent of the contributing municipalities.

Subsection (18) provides that if the contribution of the municipalities may be affected, the report of the Board of Public Utility Commissioners setting out the amount which each municipality must contribute shall be referred back to that Board for any necessary change.

Section 26 is amended to provide that a maximum of one-half of the cost of operation of a health unit constituted by order of the Minister will be payable by the municipalities. At present the amount is fixed at one-half of the cost of operation. Under the

amended section, if the Minister pays more than one-half, the contribution of the municipalities may be reduced to less than one-half.

Section 26 is further amended by the addition of a new subsection (7) which empowers the Minister to vary his own order constituting a health unit at any time by a further order.

This Act came into force on March 29, 1949.

Solemnization of Marriage Act Amendment Act (Chapter 94).

This Act amends The Solemnization of Marriage Act, being chapter 303 of the Revised Statutes of Alberta, 1942.

Section 3 is amended to make it possible for a lieutenant of the Salvation Army to solemnize marriages. This is necessary because of a change in the ranks and duties of Salvation Army personnel which has resulted in a probationary lieutenant now holding the position formerly held by a lieutenant.

A new section 14a provides in subsection (1) that thirty days must elapse after a decree absolute of divorce or final declaration of nullity of marriage has been entered before an issuer may issue a license to marry. Thus a license to marry cannot be issued while there is still a possibility of a judgment being appealed. Subsection (2) provides that if an appeal from the final decree or declaration has been entered, a license issuer shall not issue a license until satisfactory proof is furnished that the appeal has been finally disposed of.

Section 21 is amended as to subsection (4) to make it clear that a notice of the application for a license must be sent to the parent or guardian where one of the parties is under the age of twenty-one years.

Section 21 is further amended by adding a new subsection which provides that a license issuer may not issue a marriage license where a person under the age of twenty-one years is a party to the proposed marriage, until the eighth day after the mailing of the notice to a parent or guardian required by section 21.

Section 23 is amended to provide that when application is made to a judge to dispense with the consent of a parent or guardian, notice of the application must be sent to the parent or guardian in order that he may be present at the hearing of the application.

This Act is to come into force on July 1, 1949.

DEPARTMENT OF PUBLIC HEALTH
REVENUE AND EXPENDITURE FOR THE FISCAL YEAR ENDED MARCH 31st, 1950

	Salaries	Expenses	Revenue
601. Administration (General)	\$ 4,687.21	\$ 378.72	\$
602. Administration (General)	30,106.44	3,158.62	411.68
618. Administration (Postage) .....	.....	2,892.84	.....
603. Hospitals, Administration Grants	6,416.96	1,021,794.48	85.00
605. Communicable Diseases	6,459.94	65,009.98	780.44
605. Sanitary Engineering	14,138.60	5,951.36	11,006.00
606. Public Health Nursing	84,261.21	25,754.90	20,215.41
607. Vital Statistics	48,727.48	9,922.83	85,261.79
608. Municipal Hospitals	5,027.65	1,882.47	.....
609. Insulin .....	.....	8,323.88	.....
610. Social Hygiene	28,780.07	16,351.91	.....
619. Grants to University Hospital .....	.....	20,000.00	.....
622. Mental Health	24,572.60	10,235.90	.....
626. Public Health Laboratory .....	.....	134,925.00	.....
631. Poliomyelitis .....	.....	38,830.13	.....
633. Cancer Treatment & Prevention	35,135.07	340,457.52	.....
637. Maternity Hospital Service	3,578.08	942,603.02	.....
638. Civil Service Nurse	2,441.63	707.30	.....
639. Public Health Education	4,785.90	3,290.88	.....
640. Division of Entomology	7,758.68	9,540.03	.....
641. Grants to Health Units	1,026.45	76,385.32	.....
642. Health Units Training Centre	2,769.00	144.00	.....
643. Nursing Aides Act	4,500.70	553.95	556.00
644. Pensioners—Hospital and Medical Services	9,537.86	1,023,739.71	.....
645. Federal Government Health Grants ...	92,236.19	505,176.91	598,055.03
646. Hospital Construction Grants .....	.....	920,141.07	408,088.24
Institutions			
612-1. } Prov. Mental Institute, Oliver	498,194.08	295,703.44	177,418.68
613-2. } .....	.....	.....	.....
612-2. } Prov. Training School, Red Deer ..	168,995.42	86,816.50	68,366.97
612-3. } .....	.....	.....	.....
612-1. } Prov. Mental Hospital, Ponoka	694,206.60	440,623.56	288,051.19
612-4. } .....	.....	.....	.....
612-4. } Prov. Aux. Mental Hospital, Claresholm	28,774.54	24,097.05	14,368.54
612-5. } .....	.....	.....	.....
612-5. } Prov. Aux. Mental Hospital, Raymond	35,713.62	21,794.57	11,534.85
604. } Tuberculosis Control and Central	.....	.....	.....
604-C } Alberta Sanatorium, Calgary	360,960.96	561,302.27	168,750.39
	\$2,203,792.94	\$6,618,490.12	\$1,852,950.21
Total Expenditure Public Health Department			\$8,822,283.06
Less: Public Health Revenue			1,852,950.21
Net Expenditure, Department of Public Health			\$6,969,332.85

VITAL STATISTICS

Vital Statistics registered during the year were as follows:

Births	24,935
Marriages	9,037
Deaths	7,083

In all cases where rates are shown, such rates are based on a population of 871,000, the estimate of the Dominion Bureau of Statistics. In the following table, the number of births and the birth rate, the number of marriages and the marriage rate, and the number of deaths and the death rate are shown for each of the years from 1944 to 1949:

Year	No. of Births	Birth Rate	No. of Marriages	Marriages Rate	No. of Deaths	Death Rate
1944	19,372	23.70	7,299	8.90	6,320	7.70
1945	19,939	24.10	7,310	8.80	6,454	7.80
1946	22,184	27.63	9,478	11.80	6,601	8.21
1947	24,631	30.00	8,797	10.70	6,543	8.00
1948	24,075	28.50	8,844	10.50	6,987	8.30
1949	24,935	28.70	9,037	10.40	7,083	8.20

The birth rate for 1949 is 28.7 as compared with 28.5 for 1948. The marriage rate for 1949 is 10.4 as compared with 10.5 for 1948. The death rate for 1949 is 8.2 as compared with 8.3 for 1948.

General Health Conditions.

The deaths of 7,083 persons were registered in Alberta in 1949. Of this number, 4,350 were males and 2,733 females. There were 96 more deaths registered than in the previous year. There were 376 deaths from Pneumonia in 1949, an increase of 14 as compared with the previous year, and 41 deaths from Influenza, an increase of 5 as compared with the previous year. Deaths from Pulmonary Tuberculosis numbered 156 in 1949 as compared with 200 the previous year. The chief cause of death is heart disease, 2,033 deaths having been registered as due to this cause, giving a rate of 233.4 per 100,000 population, as compared with 224.1, the rate for the previous year. Deaths from Cancer registered in 1949 numbered 957, a rate of 109.9 per 100,000 population, as compared with 975 deaths from this cause and a rate of 115.2 in 1948. Deaths from violence, excluding suicides, numbered 596 as compared with 593 in 1948. The respective rates were 68.4 and 70.1.

The infantile mortality rate for 1949 is 33 as compared with 39, the rate for the previous year. Special reference to the infantile death rate will be found in another section of this report.

The maternal mortality rate for 1949 is 1.0 as compared with 1.42 for 1948. More detailed reference to the maternal mortality rate will be found in another section of this report.

Five deaths were reported as due to Whooping Cough in 1949 as compared with 11 deaths from this cause in 1948. Of these 5 deaths, 3 were infants under one year of age. It is gratifying to note the material reduction in the number of deaths from Whooping Cough. It is important that children under two years of age be immunized against this serious disease. The Department provides the vaccine for this purpose free of charge on the request of physicians and local health authorities.

There were 9,179 cases of Measles with 19 deaths, and 1,575 cases of Rubella with no deaths reported in 1949. Measles was epidemic in 1949, with an increase of 7,093 cases reported, and an increase of 12 deaths occurring from this disease. More detailed information concerning the cases of Measles and Rubella will be found in the report of the Communicable Disease Division.

There were 59 cases of Diphtheria, with 12 deaths reported in 1949, as compared with 52 cases and 6 deaths during the previous year. Of the 59 cases reported in 1949, 5 were reported by cities and 54 by rural areas. The death rate for Diphtheria in 1949 is 1.4 as compared with .7 for 1948. Twenty-five Diphtheria carriers were discovered in investigating the source of Diphtheria cases.

Diphtheria is an entirely preventable disease. The Department furnishes toxoid for the immunization of children free of charge to physicians, local health authorities and local school authorities. Children should be protected early in life and such reinforcement of immunity given as may be found necessary during school life. If such a routine were carried out all over the province, Diphtheria would soon be wiped out. An outbreak of Diphtheria in any area is an indication that effective action has not been taken to safeguard the children in the community.

During 1949, 696 persons living in outlying districts were immunized against Diphtheria by one of our Health Inspectors, part

of whose time is devoted to this work, and 368 were given combined immunization against Diphtheria and Whooping Cough.

No cases of Smallpox were reported in 1949. There are many areas in the Province in which not more than one-third of pre-school and school children have been vaccinated against Smallpox. Should the disease appear in such a community, it would spread with great rapidity, and should such an outbreak be of the malignant type, tragic results would follow. It cannot be emphasized too often that children should be vaccinated against Smallpox within the first six months of life. Vaccination should be repeated at the time the child enters school, and need not again be done unless on exposure to the disease in after-life. In spite of the fact that no Smallpox has been reported in this Province for a number of years, this disease may appear at any time and become a serious menace to the unvaccinated. Smallpox vaccine is provided free of charge by the Department to physicians, local boards of health and local school authorities.

In 1949, 732 persons in outlying areas of the Province were vaccinated against Smallpox by our Health Inspector in charge of this work.

In 1949, 865 cases of Scarlet Fever and no deaths from this cause were reported, as compared with 248 cases and no deaths in 1948.

The following is a summary of the cases reported in 1949:

Under 1 year .....	.....
1 to 4 years	197
5 to 14 years	548
15 to 19 years	47
20 years or over	63
Age not stated	10
Total	865
Cases reported by cities	446
Cases reported by towns and villages	91
Cases reported by rural areas	328

There were 13 cases of Typhoid Fever and no cases of Paratyphoid Fever reported in 1949, as compared with 13 cases and 25 cases respectively in 1948. No deaths were reported from Typhoid Fever in 1949.

I would again emphasize that the supervision and control of Typhoid and Paratyphoid carriers is a matter of vital importance to the public health. The full co-operation of all local health authorities is essential, not only in the investigation of sources of infection, but also in the supervision and control of Typhoid and Paratyphoid carriers. Constant vigilance in the supervision and control of local water, milk and food supplies is essential for the protection of the community. Pasteurization of milk and milk products carried out under proper supervision has proven a safeguard of first importance, providing protection not only against Typhoid and Paratyphoid, but also against the other milk borne diseases.

Poliomyelitis.

In 1949, 127 cases of Poliomyelitis were reported, and 9 deaths occurred from this cause.

Under the provision made for free treatment of persons suffering from paralysis due to Poliomyelitis, 51 patients were admitted to the University Hospital, Edmonton, and 15 to the Junior Red Cross Hospital, Calgary.

Assistance was extended by the Department of Public Welfare by which a number of patients were enabled to complete academic and secretarial courses and to take vocational training.

Tuberculosis.

During 1949, 211 deaths were reported from Tuberculosis (all forms), as compared with 259 deaths in 1948. Of these 211 deaths, 105 were deaths of Indians. The death rate for all forms of Tuberculosis in 1949 (including Indians) is 24.2. Excluding deaths of Indians, the death rate is 12.1 (per 100,000 population), as compared with 15.1 in 1948.

Division of Entomology.

This Division deals with epidemiological problems associated with insect-borne diseases, more especially investigations relating to Sylvatic Plague, Rocky Mountain Spotted Fever and Tularaemia. The survey in connection with the migration of rats in Western Canada and in the Western States which was begun some three years ago, was completed in 1949.

In connection with Rocky Mountain Spotted Fever survey work, 2,399 drag ticks and 2,170 host ticks were taken in 125 collections. No positive specimens were reported in 1949. There were 771 persons vaccinated against Rocky Mountain Spotted Fever; 328 in the Manyberries District, 303 in the Redcliff District, 105 in the Thelma-Elkwater District, and 30 at Medicine Hat.

During the Sylvatic Plague survey, 171 collections consisting of 656 fleas and 301 tissue specimens were made from 1,552 animals. Seven of the collections were reported positive for plague, namely, 2 at Hanna, 2 at Cessford, and 3 at Lomond. The finding of positive specimens in the Lomond District confirms the findings of two years ago, an extension of the plague area south-westward.

No positive reports were submitted in connection with Tularaemia investigations in 1949.

Educational work in regard to the prevention and control of insect-borne diseases was carried on along the same lines as in previous years, through moving picture films, lectures and the distribution of literature.

The assistance extended by the Department of National Health and Welfare in providing the laboratory service which is so essential in this work, is gratefully acknowledged.

Diseases of the Heart and Circulatory System.

Diseases of the heart accounted for 2,033 deaths in 1949, as compared with 1,896 in 1948. These 2,033 deaths represent 28.7 per cent of the deaths from all causes reported for the year, giving a death rate of 233.4 (per 100,000 population), as compared with 224.1 in 1948.

Diseases of the arteries were reported as the cause of 128 deaths in 1949, as compared with 140 in 1948. As mentioned in previous reports, the aging of our population is a factor in the increased number of deaths from diseases of the heart and circulatory system. Periodic medical examinations of children as well as adults would reveal many of these heart conditions in the early stages, when effective measures might be taken to deal with them. Early recognition and the prompt attention of skilled physicians would prevent

much disability due to diseases of the heart and circulatory system, and would prolong many lives. Here, as in so many other diseases, an ounce of prevention is worth a pound of cure.

Cancer.

In 1949, 957 deaths were registered as due to Cancer, as compared with 975 during the previous year. The death rate from Cancer in 1949 was 109.9 (per 100,000 population), as compared with 115.2 in 1948. Cancer occupies second place in the list of causes of death, and in 1949 accounted for 13.5 per cent of the total deaths registered in the Province. Early recognition of Cancer and prompt and effective treatment by competent physicians would save many lives.

The importance of educational work in the Cancer program cannot be over-emphasized. Educational work has been carried on by the Division of Cancer Services in co-operation with the Alberta Branch of the Canadian Society for the Control of Cancer and the Alberta Division of the Canadian Medical Association.

The Diagnostic Clinics, one in Edmonton and the other in Calgary, were busy throughout the year. In addition to the free diagnostic services provided by these clinics, free X-ray and radium treatment, as well as free surgical treatment, were authorized for such patients as, in the opinion of the clinic staff, would be likely to benefit by such treatment. Hospital care is provided by the Department free of charge where, in the opinion of the Cancer Clinic, admission of a patient to hospital is necessary for the purpose of establishing the diagnosis. Free hospitalization is provided for this purpose for a period up to, but not exceeding, 14 days, provided the same is authorized by the Cancer Clinic.

The following is a brief summary of the work done by the Diagnostic Clinics in 1949:

EDMONTON CLINIC:			
Examinations of new patients	2,092		
Re-examinations	2,086		
	—		4,178
CALGARY CLINIC:			
Examinations of new patients	1,424		
Re-examinations	1,138		
	—		2,562
Total for both Clinics			6,740

Of the new patients examined at the Clinics, 41.3 per cent were found to be suffering from Cancer. There were 1,853 patients referred for X-ray diagnosis, 1,058 were referred for radium or X-ray treatment, and 1,751 referred for surgical treatment.

Deaths Due to Violence.

Deaths reported as due to violence (excluding suicides) numbered 676 in 1949, as compared with 593 in 1948, representing 9.5 per cent of the total deaths registered in the Province for the year, and giving a death rate of 77.6 (per 100,000 population), as compared with 70.1 in 1948.

There were 80 suicides in 1949, as compared with 84 in 1948.

Highway accidents accounted for 169 deaths, of which 164 were due to motor vehicle accidents. It is apparent from these statistics that highway accidents constitute an important cause of death. When one considers the serious injuries suffered by many other persons

involved in highway accidents and the great expense incurred in providing hospital and medical care, this problem is one of major importance from the standpoint of public health.

There were 44 deaths reported from drowning in 1949, as compared with 53 in 1948. There is a great need for an effective educational programme in this field. Each year, a number of deaths occur as a result of the destruction of homes by fire, in some cases with parents absent from the home and children of tender years left to their own devices, with no responsible person in charge. There were 19 deaths due to conflagration in 1949.

In the following table the deaths due to violence are classified:

Suicides	80	Injury by animals	9
Homicides	15	Hunger or thirst .....	...
Railway accidents excluding motor vehicles	23	Excessive cold	10
Motor vehicle accidents	164	Excessive heat .....	...
Street car and other transport accidents	5	Lightning .....	...
Water transport	9	Food poisoning	2
Air Transport	1	Accidental absorption of poisonous gas	15
Accidents in mine and sand quarries	15	Acute accidental poisoning of solids or liquids	5
Agriculture and forestry	47	Conflagration	19
Other accidents involving machinery	17	Accidental burns (conflagration excepted)	14
Accidental drowning	44	Accidents due to electric currents	3
Accidental mechanical suffocation	14	Other accidents	28
Accidental injury by firearms	11	Legal executions	1
Accidental injury by cutting or piercing instruments	1		
Accidental injury by fall or crushing	123		676

Infantile Mortality.

There were 823 deaths of children under one year of age registered in 1949, as compared with 930 such deaths in 1948, a decrease of 107 deaths. The infantile mortality for 1949 is 33, as compared with 39 for 1948.

Of the 823 deaths of children under one year of age in 1949, 500 or 60.7 per cent occurred within the first month of life, of which number 437 occurred within the first week and 237 on the first day of life. In the continued expansion of our preventive health programme and through the organization of additional full-time District Health Units, the solution of this problem will be found. In districts which have had the advantage of the service provided by Full-time Rural Health Units for a number of years, it has been found that the infantile death rate gradually falls to approximately the same level as the rate for the cities of the Province with full-time public health services. The Department plans to expand the service provided by Full-time District Health Units as rapidly as the medical and nursing personnel required for this purpose can be recruited. An analysis of infant deaths will be found in the report of the Bureau of Vital Statistics.

Maternal Mortality.

The maternal death rate (deaths per 1,000 living births) in 1949 is 1.0 as compared with 1.2 in 1948. The average maternal death rate for the past five years is 1.42.

The following are the chief causes of maternal deaths registered in 1949:

Abortion with mention of infection	3
Abortion without mention of infection .....	...
Ectopic gestation	1
Haemorrhage of pregnancy, death prior to delivery	4
Toxaemia of pregnancy, death prior to delivery	2
Other diseases and accidents of pregnancy, death prior to delivery	7
Haemorrhage of childbirth and the puerperium	2
Infection during childbirth and the puerperium	1
Puerperal toxaemias following delivery	3
Other accidents of childbirth	2
Other and unspecified conditions of childbirth and the puerperal state	2
Total.....	25

The progressive reduction in the maternal death rate in recent years is most gratifying. We can look forward with every confidence to further reductions in our maternal and infant death rates as we go forward with the expansion of our preventive health programme in both rural and urban districts. Of the births registered in the Province in 1949, 97.2 per cent occurred in approved hospitals.

Full-time Rural Health Units.

The work of the Full-time Rural Health Units has been conducted along the same lines as in recent years. During the year, full-time medical officers of health were in charge of seven of these Units, and part-time service was provided in two. The shortage of qualified public health nurses has made it difficult for district boards of health to keep their staff up to strength. The eight Health Units which were established in 1944 and the one established in 1945, with one public health nurse in charge of the service in each of these Units, have continued to operate. Requests have been received from a number of municipalities for the establishment of additional health units, but as it has not been possible to secure the public health staff required for this work, no additional units were established in 1949.

The activities of full-time health units include the prevention and control of communicable diseases, infant and maternal hygiene, medical examination and supervision of the health of pre-school and school children, immunization, health education, supervision of water and milk supplies, food inspection, general sanitation, routine laboratory services, records and statistics, etc.

Health Education.

Health educational work is carried on through the publication of bulletins, pamphlets, articles in the press, and by means of lectures, radio talks, movies, health exhibits, and demonstrations. More than 100 publications issued by this Department and other organizations are distributed by this Division. More than 100,000 copies of such publications were distributed during the year.

In co-operation with the Audio-Visual Aids Branch of the Department of Education, the preparation of two new films, one on Mental Health and the other on District Nursing, was carried forward. The actual screening of these films was completed in the summer of 1949, and master prints were available before the end of the year. It is expected that these two films will be available for use early in 1950, and these will prove of great value in our health educational work.

Under the Federal Public Health Grant we were able to allocate to each of 17 Health Units a new 16 mm. sound projector and

generating plant. In addition, a complete projector unit was placed at the disposal of the School for Nursing Aides, at Calgary.

We now have 120 health films in the Department's Film Library. There were 476 prints of such films shown to a total audience of over 36,000 during the year.

The Department's radio programme was broadcast weekly over four Alberta stations during the year, with a coverage extending over the whole Province. We wish to express our sincere appreciation for the splendid co-operation of the radio stations in broadcasting this programme.

Health education occupies a foremost place in the programme of the modern public health department. We are finding an ever-increasing demand for more literature, films, radio talks and lectures on the various phases of health, and a very receptive audience.

Detailed information concerning the various activities in the field of health education will be found in the report of the Division of Health Education.

Nutrition.

The work of the nutrition service has been carried on along the same general lines as during the previous year. This programme is fundamentally one of continuous health education carried on with the active participation of public health personnel in the field. The literature, exhibits and films on nutrition have been reviewed with local medical officers of health, public health and district nurses, and the most effective methods of using this material discussed. Information concerning school lunch literature has been made available to public health personnel assisting in school lunch programmes. A number of field visits have been made by the Nutritionist to assist in the development of such programmes.

A display was prepared in July, outlining the chief findings of the nutrition survey in the Foothills Health Unit, to which reference was made in last year's report. This display was shown at the Edmonton Exhibition, as well as the smaller fairs, and also by a number of the health units.

During 1949, a project was undertaken under which the assistance of the Public Health Nutritionist was made available to small hospitals, school dormitories and other agencies interested in group feeding. A number of the above mentioned institutions were given assistance and advice in the planning of menus and in the purchase of kitchen equipment.

Inquiries were received from various organizations, as well as private individuals, concerning various phases of nutrition, and every effort was made to meet the requests received for information and literature. This is an important service from the standpoint of public health, and one in which there is evidence of greatly increased public interest. More detailed information concerning nutrition services will be found in the report of the Public Health Nutritionist.

Public Health Nursing.

There are 37 nurses on the staff of the Department (exclusive of public health nurses serving in District Health Units). One is in charge of the Child Hygiene Clinic serving the Calgary District, one in charge of the Clinic serving the Medicine Hat and Redcliff

Districts, and one serves the Municipal District of Norma and the Town of Vegreville. We have 34 Provincial District Nurses stationed in outlying districts remote from medical and hospital facilities. Service is provided in two of these districts by part-time married nurses living in the district who were formerly full-time members of the staff.

Miss Jean Clark, Director of the Division of Public Health Nursing, was granted leave-of-absence which became effective in September, 1948, in order to serve as a member of the Alberta Health Survey Committee. Miss Blanche A. Emerson was appointed Acting Director of the Division during the absence of Miss Clark, and Miss Marguerite Fitzsimmons was appointed Assistant Director in July.

A new district nursing service was opened in September to serve the Milk River District, and this service has been particularly well received by the people of the district.

Inasmuch as part of the District of Newbrook was included in the enlarged Municipality, this district was closed in February.

We have been fortunate in finding suitable replacements for nearly all the public health nursing personnel who have resigned or retired from the staff during the year. The high quality of the service rendered by our public health and district nurses has been well maintained during the year.

A summary of the work of our District Nurses is shown in the following table:

Treatment Consultations	21,038
Miscellaneous Public Health Consultations	7,173
Antepartum Consultations	1,540
Postpartum Consultations	326
Infant and Pre-school Consultations	4,507
Treatment Home Visits	4,642
Miscellaneous Public Health Home Visits	967
Communicable Disease Home Visits	1,289
Maternal Welfare Home Visits	345
Infant and Pre-school Public Health Home Visits	796
Deliveries	79
Abortions	47
Cases sent to Hospital or Doctor	1,202
Deaths under 1 year)	12
Deaths (over 1 year)	22
Total number doses Toxoid vaccine and Sera given	20,320
Communicable Disease cases reported	11,272
Public Health literature distributed	3,404
IMMUNIZATIONS:	
Diphtheria Toxoid	4,914
Scarlet Fever Toxin	1,165
Smallpox Vaccine	1,465
Whooping Cough Vaccine	1,863
Typhoid Fever Vaccine	28
Total Number of Doses	9,435

Detailed information concerning the activities of the Division of Public Health Nursing will be found in the report of this Division.

Social Hygiene.

Five clinics are operated by the Division of Social Hygiene, one in Edmonton, one in Calgary, one in Lethbridge, one in Medicine Hat, and one in the Slave Lake District. In addition, clinics continued to operate in each of the Provincial Gaols.

The Lethbridge Clinic, with Mrs. Madeline Larson, Public Health Nurse in Charge, has proven of great value in dealing with various problems, not only in Lethbridge, but also in the southwest part of the Province, and the increased personnel made available under the Federal Public Health Grant in the Edmonton and Cal-

gary Clinics, have been of great assistance in carrying on an expanded programme.

A Research Project under the Federal Public Health Grant dealing with the results of Malaria Pyrexia Therapy in the treatment of Neuro-syphilis in Alberta over a period of twenty-five years, has been undertaken by Dr. Margaret McWilliam. It is expected that this study will be completed by the end of 1950.

New cases under treatment in all clinics during 1949 are as follows: Syphilis 100, Gonorrhoea 1,113, making a total of 1,213.

Cases reported by doctors and military authorities are as follows: Syphilis 187, Gonorrhoea 698.

The total cases of Syphilis reported in Alberta (excluding Armed Personnel) in 1949 numbered 287, and the total number of new cases of Gonorrhoea (excluding Armed Personnel) 1,744.

Approximately 85 per cent of the alleged sources of infection in Venereal Disease cases in Alberta have been found, and where necessary, brought under treatment.

Detailed information concerning the various activities of this Division is contained in the report of the Division.

Provincial Laboratory.

The staff of the Provincial Laboratory of Public Health made 161,103 examinations in 1949. The estimated value of the work done by the Laboratory in 1949 on the basis of minimum charges for the various examinations performed is \$291,413.00.

The work of the Provincial Laboratory of Public Health includes examinations of water, ice, sewage, milk, food, various examinations in connection with communicable disease control, bacteriological, serological and pathological examinations of specimens submitted by physicians, local health authorities and hospitals, medico-legal examinations, and many other examinations.

The Provincial Laboratory serves as a centre for the distribution of vaccines and sera which are made available by the Department for the prevention and treatment of various communicable diseases.

Construction of the new Provincial Laboratory of Public Health was begun in May, and it is expected that the new Laboratory will be available for occupation by the fall of 1950. The new building which is located a short distance west of the University Hospital, will provide the most modern facilities for public health laboratory work, and will meet a need which has been felt for a number of years. This is a development of major importance from the public health point of view.

Construction of the building to house the new Southern Branch of the Provincial Laboratory of Public Health located on the grounds of the Central Alberta Sanatorium at Keith will be completed this fall. Through the Southern Branch Laboratory, public health laboratory services will be much more accessible to the people of southern Alberta. The Southern Branch Laboratory will also provide complete laboratory services for the Central Alberta Sanatorium. The opening of the Southern Branch Laboratory marks a distinct forward step in public health service in the Province. The Southern Branch Laboratory is operated under the direction of the Director of the Provincial Laboratory of Public Health. Dr. D.

Shute has been appointed Director of the Southern Branch Laboratory.

All public health laboratory service is provided free of charge, with the exception of examinations which involve highly specialized procedures. This service is of vital importance in the maintenance of an efficient public health programme. We have throughout the years been most fortunate in the high standard of service provided by the staff of the Provincial Laboratory of Public Health.

Detailed information concerning the work of the Provincial Laboratory will be found in the report of the Laboratory.

Sanitary Engineering and Sanitation.

Plans and specifications submitted to the Provincial Board of Health for waterworks, sewerage and sewage disposal plants, as well as extensions of the same, have been carefully examined, and where approved, the necessary certificates issued under the provisions of the Public Health Act.

The tremendous expansion in the construction of waterworks and sewage disposal plants, and in the extension of the same, in cities, towns and villages which has been noted in recent years, has continued on an even greater scale in 1949. This unprecedented increase in the number of waterworks and sewage systems has resulted in an enormous increase in the amount of supervision required if proper maintenance and operation procedures and necessary public health precautions are to be observed. In order to take care of this greatly increased load, an additional sanitary engineer qualified in this field, and additional qualified sanitary inspectors, are required.

Mr. J. Butterfield, Chief Sanitary Inspector, who served as a member of the staff of the Sanitary Engineering Division for a period of thirty years, retired in September and was succeeded by Mr. L. E. Stewart. Mr. Butterfield at the time of his retirement was the oldest employee from the standpoint of years of service on the staff of the Department, and it is a great pleasure to express on behalf of the Department sincere appreciation of the outstanding service he gave throughout his long tenure of office.

Mr. W. A. Milligan was promoted to the position of Chief Plumbing Inspector, succeeding Mr. A. L. H. Milligan, who retired from this appointment in October, 1948. Mr. A. L. H. Milligan was the first officer appointed to the position of Chief Plumbing Inspector, and gave splendid service in this capacity over a period of ten years.

The staff of the Sanitary Engineering Division was increased by the appointment of four additional sanitary inspectors. By virtue of these appointments, decentralization of the inspection staff of the Department has been carried out, thus reducing the time required for travel and increasing the efficiency of the sanitary inspection service.

The tourist camp inspection and classification programme inaugurated in 1947 in co-operation with the Department of Trade and Industry, was carried out along the same general lines as in the previous year. Under this programme there has been a great improvement in the sanitation and general accommodation of these camps.

The marked increase in the number of plumbing installations referred to in the report of 1948 has continued at an accelerated rate in 1949. The yearly increase from fees received from plumbing permits shows the magnitude of this increase: 1945, \$2,008; 1946, \$2,928; 1947, \$5,237; 1948, \$6,732; 1949, \$9,682. The appointment of an additional plumbing inspector is necessary in order to keep proper supervision over plumbing installations in towns, villages and rural areas.

I would like once again to direct the attention of municipal authorities to the responsibility which falls on them for the safeguarding of public water supplies. Failure to make certain that the public water supply is safe for human consumption is bound sooner or later to result in a serious outbreak of waterborne disease.

I also desire to direct the attention of municipal authorities to the responsibility resting on them for the supervision and control of milk supplies. Any municipality which permits the sale of unsafe milk is inviting serious trouble. In this regard, an ounce of prevention is worth many pounds of cure, and it is encouraging to note the increasing number of municipalities which have passed by-laws requiring pasteurization of their milk supplies. One new pasteurization plant was installed in 1949.

Detailed information concerning the activities of the Sanitary Engineering Division will be found in the report of the Division.

Division of Hospital and Medical Services.

In 1949 there were 99 approved hospitals in the Province. In addition, 22 private hospitals were licensed under the Private Hospitals Act. In addition to these hospitals, the Lloydminster United Municipal Hospital, located on the Saskatchewan side of the border, and the Fort Smith Hospital in the Northwest Territories, received the Government grant covering Alberta patients admitted to these hospitals.

On the basis of a population of 871,000, there was one hospital bed available (including cribs and bassinets) for every 155 of our population, or 6.4 per 1,000. Excluding bassinets, there was one hospital bed available for every 185 of our population.

Patient days (excluding new born) in 1949 totalled 1,436,927. There were in addition 210,431 patient days for the newborn. Of the births registered in Alberta in 1949, 97.2 per cent occurred in approved hospitals.

Construction of the following new hospitals was started in 1949:

Name of Hospital	Bed Capacity
Glendon Municipal Hospital	10
Calgary General Hospital	582

Construction of additions to the following hospitals was undertaken in 1949:

Name of Hospital	Additional Beds (excluding Bassinets)
Bentley Municipal Hospital	10
Claresholm Municipal Hospital	19
University Hospital, Edmonton	386
Grande Prairie Municipal Hospital	10
Peace River Municipal Hospital	24
Taber Municipal Hospital	12
St. Mary's Hospital, Trochu	16

There were 48 Municipal Hospitals in operation in 1949, with a total capacity of 1,547 beds, including bassinets.

The daily average number of patients in all approved hospitals in the Province was 4,513. The average stay in hospital 9.2 days. Excluding D.V.A. patients, orthopaedic, poliomyelitis and Tuberculosis Division patients in general hospitals, the average stay was 8.6 days.

The shortage of nurses, to which reference has been made in reports of previous years, was still evident in 1949, particularly in the smaller hospitals. As of December 31st, 326 nursing aides have been certified under the Nursing Aides Act. These nursing aides have given excellent service in the various hospitals in which they have been placed, and their assistance has been most valuable in meeting the urgent needs of the day.

The cost of hospital construction and equipment has continued to rise in 1949, and as yet, shows little indication of levelling off. The cost of practically all supplies used by hospitals has continued to increase. These rising costs have been reflected in an ever-increasing cost for hospitalization, and have resulted in very difficult problems for those responsible for the administration of the hospitals and the public requiring hospital services.

Detailed statistical information concerning approved hospitals will be found in the report of the Division of Hospital and Medical Services.

Canadian Red Cross Blood Transfusion Service.

This service instituted by the Canadian Red Cross Society in 1947 has, during the year 1949, given blood transfusion to 11,661 patients, representing over 20,000 bottles of blood. In addition, plasma was provided for 1,577 patients. Laboratory examinations in connection with the typing of blood and other blood examinations numbered many thousands. From the Central Depot in Edmonton and the Sub-depot in Calgary, this splendid service has been made available free of charge throughout the Province.

The response of the public as blood donors has been excellent. We sincerely trust that the keen interest and support of the public will continue unabated, so that the increasing demands for blood transfusions in grave illnesses in which such transfusions are of the most vital importance, can be adequately met.

Division of Tuberculosis Control.

The number of treatment beds available for tuberculosis in 1949 remained the same as for the previous year, namely 489. Patient days for all sanatoria and hospitals totalled 160,941.

Non-pulmonary tuberculosis cases for whom free treatment was provided as a project under the Federal Health Grants accounted for 13,677 of the above mentioned days.

During the year diagnostic services were extended to a total of 106,049 persons in the Province. In addition, diagnostic services were provided for 10,120 Indians by the Indian Affairs Branch of the Department of National Health and Welfare. Mobile X-ray Unit Surveys accounted for 73,022 examinations of the above-mentioned total of 106,049.

There were 779 new cases (all forms) of active and inactive pulmonary tuberculosis (excluding Indians) found in 1949. Of these, 415 or 53.4 per cent were considered minimal; 192 or 24.5 per cent moderately advanced; 58 or 7.6 per cent far advanced; 70

or 8.8 per cent primary; and 44 or 5.6 per cent tuberculous pleurisy with effusion.

There were 650 patients admitted to the sanatoria in 1949, and a total of 1,030 patients were treated in all sanatoria during the year.

The two Mobile X-ray clinics examined 73,022 persons in 1949. These two completely equipped Mobile X-ray units, gifts of the Alberta Tuberculosis Association, are operated by the Department, and have made an outstanding contribution in the campaign against tuberculosis in Alberta.

The Alberta Tuberculosis Association has carried on its general programme along much the same lines as in previous years. Under this programme, X-ray equipment to provide for diagnostic service has been installed in a number of hospitals, and assistance has been extended in connection with academic and vocational training. Many patients through such training, have subsequently obtained remunerative employment and have become re-established. This is a constructive programme which means much to patients who have, in many cases, to change their mode of life and type of employment.

Free sanatorium treatment for Non-pulmonary Tuberculosis was put into effect early in the year through a project under the Federal Tuberculosis Grant. The total number of patients admitted to hospital or sanatoria for treatment was 119, and the total patient days 11,085.

Free streptomycin, where authorized by the medical staff, was made available to all sanatorium patients requiring this antibiotic.

Affiliation, for the instruction of nurses in training in general hospitals, was arranged with four hospitals, six courses of eight weeks' duration being given to groups of eight affiliates. This is a noteworthy development in the training of nurses.

The cornerstone of the William Aberhart Memorial Sanatorium was laid by Mrs. Aberhart on October 14th, in a ceremony at which the Honourable Premier Manning presided as chairman. This ceremony marked an important event in the tuberculosis programme in this Province.

New construction at the Central Alberta Sanatorium, some of which began in 1948 was completed in 1949. This included the new Recreation Building with an auditorium providing accommodation for 300. The Alberta Tuberculosis Association donated 250 folding metal chairs, the stage and window drapes, and the equipment in the Occupational Therapy rooms. Two new movie projectors and a new screen were presented to the Sanatorium by the Entertainment Committee. These generous donations are gratefully acknowledged.

The Girls' Home, providing comfortable quarters for 55 girls, was completed in July. This has added much to the comfort and convenience of the staff.

The Chapel was opened for the first religious service on October 30th. The Alberta Tuberculosis Association provided the furniture for the sanctuary. This gift stands as a memorial to the late Mr. E. C. Shaughnessy and the late Mr. W. Way, two of the founders of the Alberta Tuberculosis Association in 1939. Gifts were also made by Mrs. J. H. Woods and the Samaritan Club, in the furnish-

ing of this place of worship. These generous gifts are gratefully acknowledged by the Department.

A new Workshop was completed, providing adequate accommodation for the painter, carpenter, plumber and electrician. This has already proved its value in connection with the maintenance work of the institution.

Detailed information concerning the activities of the Division of Tuberculosis Control will be found in the report of this Division.

Mental Health Division.

On January 1st, 1949, there were 3,131 patients in all mental institutions, and on December 31st, 3,171, an increase of 40 patients. The rate of hospitalized mental patients to general population has increased from 156 per 100,000 population in 1921 to 364 in 1949.

There were 484 patients with psychoses, 56 patients without psychoses, and 47 mental defectives admitted to the Provincial Mental Hospital, Ponoka, in 1949. There were 381 with psychoses, 58 without psychoses, and 20 mental defectives discharged. During the year, 63 deaths occurred, of which number 39 were deaths of male patients and 24 of female patients. There were 23 transferred from the Mental Hospital, Ponoka, to other mental institutions, including 4 male patients and 19 female patients.

There were 1,271 patients in the Provincial Mental Institute, Oliver, at the beginning of 1949, and 1,273 at the end of the year, an increase of 2. In addition, 63 patients were on leave or otherwise absent at the end of the year. During the year there were 211 patients with psychoses, 36 patients without psychoses and 19 mental defectives admitted. There were 143 patients with psychoses and 49 patients without psychoses discharged, 7 patients were transferred to other institutions, and 54 deaths occurred during the year.

In the Auxiliary Mental Hospital at Claresholm, there were 99 female patients on January 1st, 1949, and 98 at the end of the year. During the year, 8 patients were admitted (6 transferred from other institutions), 3 were discharged, 5 transferred to other hospitals, and 1 death occurred.

In the Auxiliary Mental Hospital at Raymond there were 113 female patients in residence on January 1st, 1949, and the same number at the end of the year. During the year, 4 patients were admitted (3 of whom were transferred from other institutions), no patients were discharged, and 4 deaths occurred.

During the year, 40 patients were admitted to the Training School for Mental Defectives at Red Deer, 32 were discharged, 5 were transferred to other institutions, and 8 deaths occurred. There were 298 patients in residence at the beginning of the year and 293 at the end of the year.

Dr. D. L. McCullough, who served for 18 years as Medical Superintendent of the Provincial Training School, and for 10 years previously as a member of the medical staff of the Provincial Mental Hospital at Ponoka, retired on superannuation on July 3rd. The Department desires to express its sincere appreciation of the keen interest shown and the faithful service given by Dr. McCullough over this long period, and to extend to him and to Dr. Mary McCullough, very best wishes for many happy years ahead.

Dr. McCullough was succeeded as Medical Superintendent by Dr. L. J. leVann, who assumed the duties of this position on August 17th, 1949.

The construction programme in 1949 was an extensive one, including a new Occupational Therapy Building at Ponoka, a Tuberculosis Building providing accommodation for 200 patients at Oliver, a new Occupational Therapy Building at Oliver, 3 new dormitories and a new Recreation Hall at Red Deer, and an addition providing accommodation for 12 patients at Raymond. The renovation of the Administration Building at Red Deer was almost completed. The above mentioned construction programme will make added facilities of the greatest value, available in the above mentioned institutions.

Guidance Clinics.

The services provided by Provincial Guidance Clinics were again expanded in 1949, with the re-establishment of this service in the Peace River area. This service had to be discontinued during the Second World War due to the shortage of available trained personnel.

This Province pioneered in providing preventive services in the field of mental health, the first clinic having been established in Calgary in 1929. The establishment of Travelling Guidance Clinics marks a further expansion in a programme which has already given convincing proof of its value.

During the year, 1,483 new cases were presented at the various Guidance Clinics. Since the inception of this service in 1929, 8,931 patients have passed through the clinics. The co-operation received from parents, school and health authorities and welfare and other community organizations, has been outstanding.

Eugenics Board.

The work of the Eugenics Board is carried on under the authority of the Sexual Sterilization Act. Eight meetings of the Board were held in 1949. During the year, 116 cases were presented to the Board and 109 cases were passed by the Board (52 males and 57 females). Since The Sexual Sterilization Act was proclaimed in 1929, 2,578 cases have been presented to the Board. During 1949, 20 male and 27 female cases were sterilized, bringing the total number of cases operated on, to the end of December, to 1,175, of which number 475 were male and 700 female. As in previous years, all operations were performed at the Provincial Mental Hospital, Ponoka.

Mrs. J. W. Field, who served as a member of the Eugenics Board continuously from the time the first Board was appointed in 1929 until the end of December, 1948, submitted her resignation, effective as from December 31st, 1948. Mrs. Field made an outstanding contribution in this work. Her keen interest, wide experience and sympathetic understanding were manifest at all times. I wish to express to Mrs. Field the sincere appreciation of the Department for the splendid service she gave as a member of the Eugenics Board over a period of twenty years.

The Department was most fortunate in securing the services of Mrs. R. B. Gunn to take the place of Mrs. Field on the Eugenics Board. Mrs. Gunn's appointment became effective as from January 1st, 1949.

It is with deep regret that we have to record the death of Dr. E. L. Pope in November. Dr. Pope served as a member of the Eugenics Board from the inception of this work, and gave outstanding service. His special training, broad experience, and excellent judgment, contributed in a large measure to the success of the work carried on by the Board.

The Department again wishes to express to the members of the Eugenics Board, the honourary surgeons, and the staffs of our various Mental Institutions and Guidance Clinics, its sincere appreciation of the fine service rendered by each and all in the discharge of their responsibilities.

Detailed information concerning the activities of the Mental Institutions, Guidance Clinics and the Eugenics Board is given in reports of these services.

Board of Visitors.

The Board of Visitors is constituted as follows: Dr. J. M. MacEachran, Chairman; Dr. E. L. Pope, Dr. E. R. Selby, and Mrs. R. B. Gunn.

The Board visited the various institutions coming under the administration of the Department, as well as the Provincial Guidance Clinics, during the second half of October, and a report on each of these institutions was submitted by the Board.

The Department desires to express to the Board, its sincere appreciation of the splendid service it has rendered.

General Administration.

The statement of revenue and expenditure for the year ending March 31st, 1950, will be found on page 15 of this report. An analysis of this statement shows that the total expenditure for all activities of the Department was \$8,822,283.06. The total revenue was \$1,852,950.21. The net expenditure of the Department was \$6,969,332.85. The sum of \$2,294,915.00 was expended for the maintenance and operation of the various mental institutions coming under the administration of the Department. The sum of \$922,262.00 was expended for the maintenance and operation of the Central Alberta Sanatorium at Calgary, in providing hospital accommodation and medical care for tuberculosis patients in Edmonton and other hospitals, and in providing diagnostic and other services. The sum of \$1,019,311.50 was expended in grants to approved hospitals. The sum of \$946,181.00 was expended in providing free maternity hospitalization; \$1,033,276.00 was expended in providing hospital, medical, dental and other services for pensioners, and those in receipt of mother's allowances and their dependents. The sum of \$920,141.07 was expended in Hospital Construction Grants, under the Federal Government programme of matching grants in aid of hospital construction, of which amount the Federal Government contributed \$408,088.24; \$375,592.00 was expended in providing cancer diagnostic and treatment services; \$134,925.00 was expended in grants providing for the operation of the Provincial Public Health Laboratory; \$110,015.00 was expended in providing public health and district nursing services; \$75,385.32 was expended in grants to district health units. The sum of \$598,055.03 was received from the Federal Government in grants covering various health services under the Federal Health Grants Programme. Through these grants,

the expansion of existing health services and the development of a number of new health services and activities was made possible. More detailed information concerning the same, will be found in reports of various Divisions of the Department.

In concluding this summary of the activities of the Department for the year 1949, I desire to record my sincere appreciation of the fine spirit of co-operation and the splendid service given by the Directors and members of the staff of all Divisions of the Department, including the Superintendents and members of the staff of the various Institutions which come under the administration of the Department. This Department is fortunate in the high quality of its personnel.

Respectfully submitted,

MALCOLM R. BOW, B.A., M.D., C.M., D.P.H.,
Deputy Minister of Health.

Communicable Disease Division

(N. BASTER, M.D., B.Ch., D.P.H., *Director*)

(J. A. Gillett, M.D., resigned his appointment as Director in July, 1949.)

The Division of Communicable Diseases is responsible for the co-ordination of measures taken to control communicable diseases throughout this Province. Ascertainment is by notification, information obtained is summarized and disseminated to interested bodies in the Province, in adjacent areas, and to the Dominion Government. Control is exercised by local authorities under the Public Health Act and the Regulations covering communicable diseases; the Division acts in an advisory capacity to the local authorities. In the parts of the Province not covered by the Local Health Authorities, the Division acts directly.

Accurate ascertainment presents a problem, as without it adequate control of diseases is impossible. The extent of notification is difficult to assess; but from several small checks made recently it would appear that much notifiable disease is not notified. The reasons for this need careful examination before suggestions can be made to improve the present position.

Control presents an increasing problem with the growth in population of the Province, which is aggravated by distance from Edmonton, and there seems to be a clear need for a more accessible consultation service for local practitioners, who may very rarely see cases of more serious infectious diseases such as typhoid or diphtheria.

The main features of the year were the considerable number of cases of Scarlet Fever. This disease, though fortunately becoming less severe in character, does not appear to be any less common than it ever was, and the considerable reduction in both the incidence and the mortality rate of Whooping Cough.

TYPHOID

(Cases 13, Deaths 0)

Cases of Typhoid are usually the result of sanitary defects and defence against the disease must be by improved sanitation. Detection and supervision of carriers is important in controlling sources of infection, but is a difficult procedure with so many new arrivals in the Province.

PULMONARY TUBERCULOSIS

(Cases 774, Deaths 156)

Both the number of cases reported and the number of deaths showed a further decline compared with the previous year (cases 860, deaths 200). Further detailed information is in the report of the Division of T.B. Control.

WHOOPING COUGH
(98 Cases, 5 Deaths)

This disease showed a most marked decline during the year, only 98 cases being reported compared with the previous year's 1,178. This is a much greater fall than one would expect from the cyclical regression, and it coincides with the time when we should expect to see some effect of the immunization program. The reduction is probably due to both these factors and a maintenance of these low figures in the year immediately ahead will demonstrate the value of immunization. The considerable rise of the case-fatality rate is probably not significant, as the numbers are too small. It may be some years before the effects of immunization will make an appreciable difference, as it takes time to build up an immune child population, and this year's astonishing improvement should be treated with caution.

MEASLES
(Cases 9,179, Deaths 19)

This was an epidemic year for measles and the numbers of cases reported was undoubtedly large. Apart from the deaths it causes, the amount of damage it leaves is considerable. Its high infectivity makes it a most difficult disease to control, but it is worthy of much more serious attention than it receives.

POLIOMYELITIS
(Cases 127, Deaths 9)

Following the epidemic of 1948, a fall in the incidence was to be expected, though it was still high. This figure does not represent part of the previous years' epidemic as only nine cases occurred in the first six months of the year. It may have been due to the extensive reservoir of infection left by the previous years' epidemic; immigration of non-immunes into the Province may also have contributed. It is to be expected that 1950 will show a further decline. When one considers the extensive public disquiet aroused by Poliomyelitis, it is worth while comparing the statistics with those of measles in an effort to get its importance in a truer perspective.

SCARLET FEVER
(Cases 865, Deaths 0)

Though there was an epidemic of Scarlet Fever during this year, there were no deaths for the third year in succession. This reflects the general picture of the declining severity of this diseases which appears to have taken place during the past fifty years. Its relationship to other streptococcal infections and the mildness of many cases render assessment of its incidence impossible. Though it is now seldom a fatal illness, it still often leaves unfortunate after-effects, making its control still a matter of importance. The value of immunization against the disease needs careful assessment and balancing against the very limited public health staffs available.

SMALLPOX
(Cases 0, Deaths 0)

For yet another year no cases of Smallpox were reported. Its severity and high infectivity render it still a potential source of danger to a susceptible population. The position is complicated by

its rarity often leading to failure to diagnose in the early stages, and increasing air travel making the possibility of an imported case resulting in many contacts in the incubation and early stages. Vaccination must, therefore, be kept at a high level.

DIPHTHERIA

(Cases 59, Deaths 12)

The number of cases showed an increase over the previous year's (52 cases), and the number of deaths was doubled. Only seven of these cases occurred in either the two main cities or in those parts of the Province having a fully functioning health unit service. Prior to the introduction of immunization, diphtheria struck most severely in the more urbanized districts as its opportunity for spread is so much greater in the close contact communities. The reversal of this in the Province indicates the value of immunization.

Diphtheria is entirely preventable by immunization, and there is no doubt that if the immunization state throughout the Province could be raised the disease would disappear. A considerable effort to raise the immunization state in parts of the Province other than the big cities or health unit areas is well worth while.

It will be seen from Table 4 that there has been little change in the picture during the past ten years.

RUBELLA

(Cases 1,575, Deaths 0)

Though Rubella is considered a mild disease, work carried out during recent years showing the part it plays in the production of malformation in the foetus when contracted in the early months of pregnancy has focussed attention on it. It is advised by several authorities that it is an indication for the termination of pregnancy when contracted in the early months, in order to avoid the possible birth of a malformed infant. With the evidence at present available it would seem a good deal of thought is necessary before a general policy can be formulated as there are many different aspects of this problem which require study.

UNDULANT FEVER

(Cases 19, Deaths 0)

This shows a marked decline compared with the number reported the previous year (47). Pasteurization of milk prevents this disease from being a major problem, but when it exists in cattle a steady run of cases from rural areas where unpasteurized milk is consumed must be expected. Further improvement in the position will depend on the success of the Department of Agriculture's efforts to rid the Province of the disease in cattle.

TABLE 1

NUMBER OF CASES OF COMMUNICABLE DISEASES REPORTED, 1948 AND 1949

	1948	1949		1948	1949
Actinomycosis	2	3	Mumps	1,432	1,013
Anthrax	1	....	Paratyphoid	25	1
Acute Anterior Polio	380	127	Rocky Mtn. Spotted Fever .....	....	....
Chickenpox	2,834	3,067	Rubella	289	1,575
Diphtheria	52	59	Scarlet Fever	248	865
Dysentery	7	17	Smallpox .....	....	....
Encephalitis	3	2	Tetanus .....	....	1
Erysipelas	23	24	T.B. Meningitis .....	....	....
Food Poisoning .....	....	14	Tuberculosis, Pulmonary	860	774
Glandular Fever .....	....	1	Tuberculosis, Non-pulmonary....	68	356
Infectious Hepatitis	5	6	Trachoma .....	....	1
Infectious Mononucleosis	5	7	Tularemia	2	1
Malaria .....	....	2	Typhoid	13	13
Measles	2,086	9,179	Undulant Fever	47	19
Cerebro-Spinal Meningitis	7	8	Whooping Cough	1,178	98

TABLE 2

TOTAL DEATHS DUE TO COMMUNICABLE DISEASES IN THE PROVINCE OF ALBERTA FOR 1948 AND 1949, WITH DEATH RATE PER 100,000 POPULATION

Disease	1948		1949	
	Total Deaths	Rate Per 100,000 Population	Total Deaths	Rate Per 100,000 Population
Acute Poliomyelitis and Polioencephalitis.....	28	3.3	9	1.0
Cerebro-spinal Meningitis	2	.23	1	.11
Diarrhoea and Enteritis	93	11.0	63	7.2
Diphtheria	6	.7	12	1.4
Measles	7	.8	19	2.2
Scarlet Fever	0	.0	0	0
Smallpox	0	.0	0	0
Tuberculosis, Respiratory	200	23.5	155	17.8
Tuberculosis, Other	59	6.9	54	6.2
Typhoid	0	0	1	.11
Whooping Cough	11	1.3	5	.57

TABL 4
INCIDENCE OF SOME OF THE MORE SERIOUS COMMUNICABLE DISEASES FOR
THE TEN YEAR PERIOD, 1939-1949

DIPHTHERIA					
	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
1939	789,000	36	7	4.5	0.9
1940	795,000	52	12	6.42	1.5
1941	796,169	31	6	3.9	0.8
1942	805,152	58	11	7.3	1.4
1943	792,000	46	11	5.8	1.4
1944	818,000	57	5	7.2	0.6
1945	826,000	53	9	6.4	1.1
1946	803,330	48	7	5.9	0.9
1947	822,000	86	7	10.5	0.9
1948	846,000	52	6	6.1	.7
1949	871,000	59	12	6.8	1.4
TYPHOID FEVER					
1939	789,000	34	4	4.37	.51
1940	795,000	36	3	4.5	.40
1941	796,169	33	5	4.1	.60
1942	805,152	18	1	2.3	.10
1943	792,000	11	1	1.4	0.1
1944	818,000	101	8	12.4	1.0
1945	826,000	20	2	2.4	0.2
1946	803,330	9	....	1.1	....
1947	822,000	17	1	2.07	0.12
1948	846,000	13	....	1.6	....
1949	871,000	13	1	1.5	.11
ACUTE ANTERIOR POLIOMYELITIS					
1939	789,000	24	5	3.0	0.6
1940	795,000	....	4	....	....
1941	796,169	167	8	20.9	1.0
1942	805,152	8	....	1.0	....
1943	792,000	24	....	3.0	....
1944	818,000	107	1	13.3	0.1
1945	826,000	19	....	2.3	....
1946	803,330	78	8	9.70	1.0
1947	822,000	84	7	10.2	0.9
1948	846,000	380	28	44.9	3.3
1949	871,000	127	9	14.6	1.0
WHOOPIING COUGH					
1939	789,000	2,080	33	263.6	4.2
1940	795,000	1,158	55	45.7	7.0
1941	796,169	364	23	19.8	2.9
1942	805,152	1,131	12	141.0	1.5
1943	792,000	1,520	12	191.0	1.5
1944	818,000	757	42	94.5	5.7
1945	826,000	694	43	84.4	5.2
1946	803,330	308	19	38.3	2.3
1947	822,000	972	9	118.2	1.1
1948	846,000	1,178	11	138.1	1.3
1949	871,000	98	5	11.3	.57
SCARLET FEVER					
1939	789,000	1,113	19	141.0	2.4
1940	795,000	779	9	98.0	1.1
1941	796,169	792	6	101.0	0.8
1942	805,152	2,265	11	286.0	1.4
1942	805,152	1,676	7	208.0	0.9
1944	818,000	2,615	9	327.0	1.1
1945	826,000	1,358	1	164.0	0.1
1946	803,330	482	1	59.8	0.1
1947	822,000	225	....	27.4	....
1948	846,000	248	....	29.3	....
1949	871,000	865	....	99.3	....
SMALLPOX					
1939	789,000	45	....	5.7	....
1940	795,000	....	....	....	....
1941	796,169	1	....	0.1	....
1943	792,000	1	....	0.1	....
1943	792,000	2	....	....	....
1944	818,000	....	....	....	....
1945	826,000	....	....	....	....
1946	803,330	....	....	....	....
1947	822,000	....	....	....	....
1948	846,000	....	....	....	....
1949	871,000	....	....	....	....

CHICKENPOX

Cities	917	897	369	167	155	95	87	129	103	66	56	152	223	213	68	494	1129	26	55	42	1814
Towns and Villages	160	185	79	43	47	18	23	32	17	7	14	23	33	9	7	72	234	15	11	6	345
Rural Areas	478	430	131	94	74	35	71	128	30	21	21	125	76	99	19	153	659	28	30	20	908
Totals	1555	1512	579	304	276	148	181	289	150	94	91	300	332	321	93	719	2022	69	96	68	3067

DIPHThERIA CARRIERS

Cities .....	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	1	1	...	...	...	2
Rural Areas	9	14	...	11	8	1	...	...	...	...	1	1	1	...	...	2	9	5	6	...	23
Totals	9	16	...	11	8	1	...	...	...	...	1	3	1	...	1	3	10	5	6	...	25

DIPHThERIA

Cities	2	3	3	1	...	...	...	...	...	...	...	1	...	...	1	1	1	1	1	...	5
Towns and Villages	3	7	9	...	...	...	...	...	...	...	...	1	...	...	...	4	5	...	1	...	10
Rural Areas	21	23	13	13	8	2	...	...	4	...	...	1	...	1	1	10	20	4	9	...	44
Totals	26	33	25	14	8	2	2	...	4	...	...	3	...	1	2	15	26	4	11	...	59

MEASLES

Cities	2717	2750	611	893	924	703	918	740	174	81	22	54	122	225	144	1713	3373	100	90	47	5467
Towns and Villages	535	515	107	20	96	201	276	191	41	41	13	27	7	30	19	261	701	35	30	4	1050
Rural Areas	1381	1281	247	214	151	257	557	518	191	72	41	99	163	142	64	544	1804	113	75	62	2662
Totals	4633	4546	965	1127	1171	1161	1751	1449	406	194	76	180	292	397	227	2518	5878	248	195	113	9179

MUMPS

Cities	322	288	84	77	57	18	28	12	10	13	12	55	83	161	6	105	397	19	65	18	610
Towns and Villages	61	56	12	15	10	8	12	21	3	5	8	6	2	15	1	11	70	10	25	...	117
Rural Areas	153	133	64	36	35	3	13	34	8	7	4	1	36	45	...	30	161	47	40	8	286
Totals	536	477	160	128	102	29	53	67	21	25	24	62	121	221	7	146	628	76	130	26	1013

POLIOMYELITIS

1949	Sex		MONTHS												AGES						TOTAL	
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over	Not Stated		
Cities	24	38						1	3	13	28	10	6				8	28	5	21	...	62
Towns and Villages	9	12							1	1	6	10	2	2			2	14		5	...	21
Rural Areas	30	14	1	1		1	1	1	6	12	8	9	3	1			7	13	7	15	2	44
Totals	63	64	1	1		2	1	2	10	31	46	21	11	1			17	55	12	41	2	127

RUBELLA

Cities	477	495	16	11	49	45	64	123	80	34	38	44	125	343	22	158	680	70	23	19	972
Towns and Villages	95	82	6	7	18	35	38	42	7		8	1	5	10	7	23	118	18	6	6	177
Rural Areas	206	220	22	9	6	34	115	136	24	6	2	5	11	56	18	87	238	48	28	7	426
Totals	778	797	44	27	73	114	217	301	111	40	48	50	141	409	47	268	1036	136	57	31	1575

PULMONARY TUBERCULOSIS

Cities:																						
Edmonton	67	61	4	11	8	6	11	8	12	15	7	8	23	15	...	1	1	9	117	...	128	
Calgary	30	63	13	5	5	4	13	9	6	9	7	8	9	5	...	2	4	5	79	3	93	
Drumheller	4	6	3	1	...	1	1	...	1	1	2	...	...	1	...	...	...	2	7	1	10
Lethbridge	17	8	8	2	6	...	2	...	4	1	...	...	...	1	...	1	2	...	22	...	25
Medicine Hat	13	16	7	4	7	2	5	...	3	...	...	...	...	1	...	...	...	2	27	...	29
Red Deer	3	5	1	1	1	1	...	...	1	2	...	1	...	1	...	...	2	1	5	...	8
Towns and Villages	66	71	10	7	6	8	15	11	10	12	8	12	17	21	...	1	3	11	107	15	137	
Rural Areas	163	181	10	25	34	22	19	16	24	40	27	14	68	45	...	5	26	32	279	2	344	
Totals	363	411	56	56	66	44	66	45	61	79	51	43	117	90	...	10	38	62	643	21	774	

NON-PULMONARY TUBERCULOSIS

Cities:	23	39		7	4	7	12	1	3	3	7	4	3	13	1		2	15	5	40		62
Edmonton	11	7	1	1	1	2	1	3	2	2	2		1	2	2		3	2	1	12		18
Calgary		1	1																	1	1	
Lethbridge		1	1																	4	7	
Medicine Hat	2	5	2	1	1	1	1							1				3		1	1	
Red Deer	1										1									1	1	
Towns and Villages	24	26	2		3	5	3	4	4	10	4	4	3	8	5		3	11	7	24	5	
Rural Areas	112	105	6	34	15	10	12	9	17	11	10	9	9	57	27		32	82	28	70	3	
Totals	173	183	12	43	24	25	29	17	26	31	18	15	81	35		2	40	113	41	152	8	
																					356	

[illegible]

1949	Sex		MONTHS												AGES						TOTAL	
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over	Not Stated		
TRENCH MOUTH: Edmonton		2								1			1					1		...	1	2
TULARAEMIA: Tofield	1	...									1							...	1	...	1	1
VINCENTS AGINA: Edmonton	1	1	1	...	1												1	1	...	...	...	2

Division of Entomology

J. H. BROWN, B.Sc., M.Sc., F.A.P.H.A.

This Division deals with epidemiological problems associated with insect-borne diseases. A considerable amount of the time of the Division was devoted to investigations relating to Sylvatic Plague, Spotted Fever and Tularaemia. The survey in connection with the migration of rats in Western Canada and in the Western United States was continued.

In connection with the survey relating to Rocky Mountain Spotted Fever, 2,399 drag ticks and 2,170 host ticks were taken in 125 collections. No positives were found.

There were 771 persons—396 males and 375 females—vaccinated against Rocky Mountain Spotted Fever; 328 in the Maryberries district, 303 in the Redcliff district; 105 in the Thelma-Elkwater district, and 30 at Medicine Hat.

During the course of the Sylvatic Plague survey 171 collections, consisting of 656 fleas and 301 tissue specimens, were made from 1,522 animals. Seven of the collections were positive for plague. These were made at the following places: 2 at Hanna, 2 at Cessford and 3 at Lomond. The location for the plague infection at Lomond confirms the findings two years ago of a southwestward extension of the Brooks plague area.

Although no positives were found in animals or insects collected during the course of the tularaemia investigations, it is now known that this disease is widespread throughout the province, with an increasing number of human cases being reported each year.

Educational work in regard to the prevention and control of insect-borne diseases was carried on along the same general lines as in previous years, through moving picture films, lectures and the distribution of literature.

The assistance of the Department of National Health and Welfare in providing the laboratory service which is essential in this work is gratefully acknowledged.

General

During the past year the work of the division has increased greatly through the requests from Medical Officers of Health and the general public for information on the control of insect pests.

Fly control is becoming an important part of the work as considerable interest has been aroused in flies as a probable means of spreading poliomyelitis.

A number towns and villages are establishing mosquito control programs based on recommendations from this division.

The investigation of insect infestations in foodstuffs continues on a much larger scale. Great success has been had through the co-operation of the wholesale houses and the Food and Drug Division of the Department of National Health and Welfare in bringing this infestation under control.

A considerable number of cases of myiasis in human beings and animals on fur ranches were investigated and control measures recommended.

The first death in the Province from shock following a bee sting was recorded on July 24th, when a four-year-old female died at Morinville.

Cancer Services

V. W. WRIGHT, M.D., *Director, Cancer Diagnostic Clinics*

The following figures indicate the activities of the Edmonton and Calgary Clinics for the year 1949:

NUMBER OF PATIENTS EXAMINED			
	New	Follow-up	Total
Edmonton	2,092	2,086	4,178
Calgary	1,424	1,138	2,562
Totals	3,516	3,224	6,740

It will be noted that the total number of new cases is 3,516 compared with 3,220 in 1948, 2,916 in 1947, 2,258 in 1946, 1,794 in 1945, 1,726 in 1944, 1,670 in 1943, 1,186 in 1942, and 1,142 in 1941.

Of these new cases, 2,063 were found to be non-malignant and, therefore, did not require treatment under the Cancer Clinics.

A summary of the anatomical distribution of the cancerous lesions in order of frequency is attached hereto, 1,453 in number.

The total number of surgical operations authorized for 1949 was as follows:

Edmonton	1,269
Calgary	822
Total	2,091

The total number of authorizations for surgical operations acted upon was as follows:

Edmonton	1,116
Calgary	625
Total	1,741

The total number of cases referred to hospitals:

Edmonton	1,645
Calgary	537
Total	2,182

The total number of cases referred by the Clinics for x-ray therapy:

Edmonton	549
Calgary	509
Total	1,058

The total number of cases referred for x-ray examinations:

Edmonton	1,280
Calgary	573
Total	1,853

The total number of cases referred for miscellaneous examinations and treatments in Edmonton was 405.

The total number of cases referred to Specialists for consultations in Calgary was 54.

The total number of cases referred for cystoscopies, pyelograms, genito-urinary opinions by the Edmonton Clinic was 214.

The total number of cases referred for bronchoscopic, bronchograms and oesophagoscopies by the Edmonton Clinic was 111.

The total number of cases referred for complete blood counts, gastric analysis, etc., by the Edmonton Clinic was 201.

Since the opening of the Clinic in 1941, the total number of cases examined, exclusive of re-examinations, is 19,428. Of these, 9,280 were diagnosed as cancer, or 47.8%.

1949 ANATOMICAL DISTRIBUTION OF CANCEROUS LESIONS IN ORDER
OF FREQUENCY

EDMONTON		CALGARY	
Skin	126	Skin	168
Breast	82	Breast	94
Stomach	61	Lip	65
Colon	40	Uterus	59
Lip	38	Stomach	51
Miscellaneous	38	Colon	41
Cervix	31	Cervix	34
Rectum	31	Bladder	25
Uterus	25	Rectum	25
Lung	23	Ovary	19
Prostate	19	Prostate	19
Bladder	17	Mouth	16
Brain	17	Larynx	15
Lymphomas	16	Abdomen	15
Leukamia	13	Lung	13
Ovary	13	Kidney	12
Mouth	12	Pancreas	11
Sarcomas	11	Brain	10
Pancreas	10	Hodgkin's	10
Kidney	9	Thyroid	10
Bone	6	Lymph Gland	8
Testicle	5	Leukemia	8
Larynx	5	Esophagus	7
Hodgkins	4	Parotid	6
Oesphagus	4	Testicle	6
Pharynx	3	Caecum	5
Vulva	2	Nostril	5
Gall-Bladder	2	Sarcoma	4
Thyroid	2	Penis	3
Eye	2	Salivary Gland	2
Penis	2	Vocal Cord	2
		Vulva	2
Total.....	669	Bone	1
		Eye	1
		Antrum	1
		Deltoid Muscles	1
		Gall-Bladder	1
		Hip	1
		Knee	1
		Liver	1
		Nasopharynx	1
		Pituitary	1
		Rib	1
		Shoulder	1
		Tonsil	1
		Urethra	1
		Vanquez Disease	1
		Total	784

Health Education

C. C. Evoy, B.Sc., *Director*

Health instruction aims to assist the pupil in acquiring desirable habits, wholesome attitudes and adequate knowledge relating to personal, community and racial health. Health instruction utilizes the life experiences of youth and adults, guiding these experiences toward intelligent self-direction and community group action for improved personal and social welfare.

Inherited capacities and factors in the environment affect the health of a person. Health instruction rightfully takes cognizance of these forces as it integrates school experiences with actual living in the home and community. Within the school itself health instruction combines the educational features of health services and healthful school living, and includes planned activities of direct or incidental teaching.

The general objectives of health education outlined by a prominent committee with modifications to comply with current educational practices are as follows: *

1. To guide children and youth in the conservation and improvement of their own health.
2. To assist them in establishing the habits and principles of living which, throughout their school life and in later years, will assure that abundant vigor and vitality which provide the basis for the greatest possible happiness and service in personal, family and community life.
3. To influence parents and other adults, through the health education program for children, to better habits and attitudes, so that the school may become an effective agency for the promotion of the social aspects of health education in the family and community as well as in the school itself.
4. To improve the individual and community life of the future; to ensure a better second generation and a still better third generation.

The health educator visited 74 schools on field trips showing films to 5,816 pupils and teachers in many parts of the Province. At each school there was an opportunity to assist the teacher in outlining to the pupils the services of the Department of Public Health. Specific teaching of certain communicable diseases was given to selected groups at certain schools. This presentation supplemented with appropriate films gave pupils and teacher a better concept of the subject matter required in the health program.

I was accompanied by the district nurse of the area on some of the visitations. She had an opportunity to work with the teacher and pupils outlining her work and correlating its function.

The objectives in preventive medicine and talks on feminine hygiene with a film were given by the nurse to 'teen-age girls. The interest shown in the subject justified the time expended and ex-

*Principles of Health Education Applied. C. L. Brownell, 1949.

emplified the fact that there is a place for the public health-trained nurse in school health instruction.

Part of the time the Public Health Nutritionist assisted in the health education programme by speaking to teachers and pupils about the services of her division. Many teachers took advantage of the opportunity to get first hand information and guidance in the organization of a school lunch programme.

This type of education where the teacher, pupil and health educator work together, I consider one of the most important.

Health Education Media

Health information to be disseminated is either general in scope or pointed toward a specific objective and for both the tools at the disposal of the health educator are essentially the same. They include the spoken word, printed matter, exhibits, motion pictures and the radio. Of these, the spoken word in individual or group contact is the most productive. It is difficult to estimate the respective values of the others, but all have their uses as supplements to direct instruction.

Audio-Visual

In 1947 we entertained the idea of preparing films on various services of the Department of Public Health. During 1948 this project was started by preparing scripts for two films, one on Mental Health and the other District Nursing. The actual screening of these films was completed in the summer of 1949, and master prints were available late in the year. It is hoped that the sound commentary will be added early in 1950 and the films available for distribution by the fall.

The Health Education Division assumed the responsibility of making all the necessary arrangements for the preparation of these films. Co-operating with them were the Division of Mental Health and the Nursing Division. The photography was done by the Film and Photographic Branch of the Department of Economic Affairs.

Each year this division previews many new films and filmstrips with a view to purchase. The Screening Committee consists of heads of divisions, and is called upon to serve in this capacity when a new film or strip relating to their respective service is obtained for preview. Some of our older prints are in need of duplication or replacement. We hope that this next year will bring many needed new films for purchase approval with the hope that a federal health grant project for this may be made available.

New subjects added to our library include: Mental Health, Sex Education, Human Biology, Sanitation, Nutrition and Child Welfare.

It was most gratifying to be able to allocate to each of seventeen health units a new 16 mm. sound projector and generating plant through the Dominion Grant for Health Education in this Province. Also a complete projector unit was placed at the disposal of the Nursing Aides School of this Department at Calgary.

The immediate result of providing this equipment to our field staff has been to open the door of audio-visual health education to 250,000 citizens of the Province. Since the inception of this service there has been a marked increase in the demands upon our film library. Reports indicate that our health prints have been screened for church, home and school, community and school groups.

We have 120 films in the library—476 prints were shown to a total audience of 36,012 people through 1,234 screenings.

Radio

The objectives of radio health education are to instruct the public in all matters pertaining to health in the prevention of disease, and in the early and competent treatment of disease. Implied in the term instruction is a motor element—that the public not only will know, but will also act according to its knowledge. These objectives cannot be encompassed in every act of every health educator. They are to be striven for piecemeal and are shared by several different groups.

A better appreciation of the point may be gained by scrutinizing the types of effort put forth by the various groups active in health education. Such a scrutiny suggests a distinct classification: the voluntary organization and the official health department. A number of the voluntary health organizations are interested primarily in some one disease or some one phase of hygiene, for example, tuberculosis, cancer, social hygiene, first aid or nutrition. A second definite group comprises the official health organizations, the Rural Health Unit, the City, the Provincial Department of Health, and the National Department of Health and Welfare. A third group embraces the official medical societies, provincial and dominion.*

Basically, the objectives of radio health education conducted by the Provincial Department of Health should be to gain public support, public appreciation and public participation in the functions of the Department. It should be the aim of the Department officials to acquaint the public with what the Department does, the reasons therefor, and so on.

Regular health radio programmes were broadcast weekly over four Alberta stations during the year. Range of subject matter was wide; presentation, dramatic in form, and coverage would include most of the Province for each broadcast. Two themes, "Melody of Life" and "That Wonderful Feeling", each with thirteen programmes, were selected for the spring and fall periods. No broadcasts were made during the months of July and August.

Exhibition Displays

Although in considerable competition for favor with Edmonton Exhibition visitors, the health display attracted attention from many thousands every day. In addition to an exceptionally fine showing of work done in the Occupational Therapy classes at Alberta Mental Hospitals, the display this year featured the history of a birth certificate, stressing the importance of birth registration and the securing of one of the new plastic birth certificates. The model village prepared through the Division of Health Education included a hospital, recreation centre, playground, stores, creamery, health unit centre, school, sewage treatment and disposal plant, water tower, and a railway system, all of which goes to complete modern health facilities in a small centre. T.B. Control featured a colored motion picture on a daylight screen, and the Health Education Division screened many other health films in a small theatre off the main display.

The Division of Entomology had a unique portable cabinet display of a map of Canada showing the rat invasion from the be-

*Radio in Health Education, 1945. New York Academy of Medicine.

ginning of the century. A manually operated dial would bring into play a lighting system which showed advances in 10-year periods.

The Division of Mental Health: The Handicrafts display by the Occupational Therapy sections of the Oliver and Ponoka Mental Hospitals was superb; some of the craftsmanship in this section is of the highest order. Children's toys of durable quality, table lamps, racks, candlestick holders, and many other accessories for the home were featured in the Oliver Display Room. None of these articles were for sale, but interested patrons could leave orders to be filled.

All of the various divisions of the Alberta Department of Public Health were represented. Attendants from some of the Divisions were present at all times to guide the public through display sections and to answer the many questions about the services of the Department.

The model village display "Fort Health", which was featured at the Edmonton Exhibition, was also displayed at a local carnival in the Foothills Health Unit area.

In conjunction with the Division of Nutrition, Vital Statistics and Entomology, displays on Nutrition, Birth Certificate, and Rats were shown in various parts of the Province.

A new panel display on "Pathways to Personality" was obtained from the Department of Health and Welfare, Ottawa, for use in Health Units, district nursing areas and on special occasions.

Although very attractively set up, this latter type of display is not in demand as much as other media.

Lectures

Lecture service was provided to a number of groups requesting talks and films on phases of public health. Personnel from the other divisions of the department assisted where possible. Four Home and School meetings showed a special interest in the new film Human Growth and its method of teaching sex education to school children. It is apparent from the discussion at these meetings that parents welcome the opportunity to participate in this type of instruction, and that there is a definite need for adult education in this field of health.

This division arranged for seven speakers to address the St. Andrew's Home and School Association on the last Tuesday of every month during the winter season. Experts in their field, these people discussed the following subjects: Problems of Children, Dental Caries Control, Home Nursing, Nutrition, Behavior Patterns, The Rh Factor, and Your Children's Eyes. The Association was most appreciative of this type of service.

Literature

Many new pamphlets, booklets and supplements were added to the growing list of public health publications this year in the departments of Child Welfare, Nutrition, Personal Hygiene, Sanitation, Mental Health and Communicable Diseases. Those of extra-provincial origin included the Metropolitan Life Insurance Co., the Department of National Health and Welfare, and from within the Province, the Alberta Tuberculosis Association and the Department of Public Health. In all thirty different new approaches have been selected as being appropriate and constructive in the advancement of better health.

Booklets most in demand are those covering the services of the department, sanitation, rural health units and the Canadian Mother and Child. These are followed in the number of requests by cancer and communicable disease pamphlets.

HEALTH EDUCATION SERVICES

Mimeograph Service

Through a Dominion Health Grant Project a mimeograph machine was acquired by this division, and is used by most of the divisions in the department.

This new equipment is capable of turning out excellent work at a fast rate, and has been used to prepare news letters, circulars, the Alberta Public Health Worker, forms, etc.

Circulation Service

Many news letters, bulletins, reports, etc., of special interest to members of the department, are received in this office. These are circulated to all the divisions regularly for perusal. On their return to this division they are filed, and are available for reference at any time.

Publicity for Radio Programs

To prepare the radio audience for the series of Mental Health broadcasts entitled "In Search of Ourselves" to be aired in February, 1950, this division sent a circular to our Health Units, District Nurses, School Superintendents, Home and School Association, Farmers' Union of Alberta, Women's Institute, School for Nursing Aides, Film Councils and other key people in the Province, with the result that approximately 9,600 publicity folders were distributed throughout the Province. The publicity campaign was continued into 1950 with the distribution of 6,900 programme guides, announcements over the radio and press releases.

A series of Venereal Disease dramatizations, prepared for the Department of National Health and Welfare, was received by radio station CFRN. With the co-operation of our Social Hygiene division these programmes were auditioned and approved. The organizations listed above were notified and the programmes released for broadcast.

ACTIVITIES

Health Education Conference

The Health Education Conference with representatives from the nine provinces, met in Ottawa, March 1st, 2nd and 3rd. Among the resolutions approved was the following:

The Conference recommends the preparation of units of health education material which will include a film, filmstrip, illustrated pamphlets, and where possible posters: on: Safe Milk Production, Small Milk Plant Operation, Septic Tanks, Communicable Disease, Social Medicine, Family Relations, Small Town Water Supply and Sewage Disposal, Child Guidance Clinics, and V.D. Clinics.

A filmstrip, "The Health of the People", which depicts the services of the Department of Public Health, Alberta, was shown at this Conference, and received very high approval from the group.

Alberta Public Health Association

The members of the Alberta Public Health Association met in conference at the Macdonald Hotel, Edmonton, September 12th and 13th. Papers were presented on School Sanitation, Dental Caries, etc. The Director of Health Education was asked to speak on the use of the projector in health education. Copies of this talk containing instructions on the proper use and care of 16 millimeter projector equipment were forwarded to health units and district nurses as well as outside agencies. This talk was also printed in an issue of the publication, *The Alberta Public Health Worker*.

The Alberta Public Health Worker

In the fall and winter issues of this magazine this division contributed a section entitled Information Services. This section was in effect a supplement to our catalogue Health Education services, and provided information concerning the latest purchases for our film library, new literature, posters and displays.

Nutrition Services

BESS MORRISON, B.Sc., (*Household Economics*)

ELVA M. PERDUE, B.Sc. (*Household Economics*)

During the two years since the establishment of a Nutrition Service with the Department of Public Health in 1947, the programme has been extended to keep pace with progress made in research and other channels. In an effort to provide a practical service, various approaches to nutrition education have been introduced, and the most effective incorporated into a continuing programme. Fundamentally, a Public Health Nutrition programme must take the form of a continuous public education, assisting people in their efforts to meet their nutritional problems successfully. In order to do this there must be a breakdown of faulty traditional dietary habits, and the translation of scientific dietary analysis and planning into terms readily understood by the public.

Since the nutritionist cannot expect to work with a large number of individuals personally, the nutrition programme is largely implemented through consultation. The present policy emphasizes the importance of the participation of the field personnel in all local public health nutrition-work. The variety of services provided to all local public health personnel during the year has included assistance with nutrition education in the local health education programme, school lunch work, and other community or individual nutrition problems.

The nutritionist has endeavored, during the year, to spend some time with the public health personnel in the field. While working with the nurses the available nutrition literature, exhibits and films are reviewed and methods of using them in health education programmes are discussed. A mimeographed pamphlet, *Nutrition News*, is distributed to the public health nurses to assist them in their efforts to keep up to date with advances in the field of nutrition. The current developments in the field of nutrition are brought to the attention of the nurses in order that they can use the information in their daily contacts within the community.

Local public health personnel, in giving assistance with school lunch programmes in their areas, have increased this service substantially. Considerable information through correspondence and school lunch literature has been provided to public health personnel assisting with lunch programmes. Requests for further help, such as technical guidance and direction with food-service problems, have been followed by a visit from the nutritionist whenever possible.

Working in co-operation with the Division of Health Education, the nutritionist visited schools throughout the Province. During these visits a talk on nutrition was given and a film shown to the students. When it was possible, the nutritionist spoke to teachers' groups regarding the available nutrition teaching aids and outlined developments in the nutrition field.

In July a large display outlining the findings of a nutrition survey in the Foothills Health Unit was prepared. This material was used at the Edmonton Exhibition and at some of the smaller fairs, as well as in the offices of the various health units. In this way many hundreds of people were contacted and informed of the services. Additional nutrition displays were prepared and shown at conventions and in the high schools.

During 1949 a project was commenced to give assistance to small hospitals, school dormitories and other agencies interested in group feeding. Each month a release containing a week's supper menus and recipes is distributed. The purpose of this material is to offer suggestions to provide variety in the diets and to encourage the use of inexpensive and seasonal foods. Guidance and assistance has been given to small hospitals with the purchasing of kitchen equipment.

Inquiries from private citizens regarding all phases of nutrition were received. Mimeographed materials were prepared to answer some of the more frequent inquiries. During the year numerous small groups and organizations called upon the nutritionist for assistance with programmes. Among these were: Home and School Associations, Ladies' Auxiliaries of the various churches, local community organizations and Red Cross Home Nursing classes. Lectures were also given at institutes arranged for the teachers in various areas of the Province.

The majority of the nutrition publications distributed by the Nutrition Services were produced by the Nutrition Division, Department of National Health and Welfare. These materials are supplied to the Province by the federal department for distribution at the provincial level. In view of the wide coverage given all phases of nutrition by these publications, there have not been any printed materials produced by the Provincial Department of Public Health.

The nutritionists employed by the Dominion and Provincial Departments of Health are members of the Dominion-Provincial Nutrition Committee formed late in 1945. At meetings held annually, the committee discusses Dominion-Provincial problems and plans. The Public Health Nutritionist attended meetings of the committee, which were held in March of 1949.

The staff of the Nutrition Services for the past year has included a nutritionist and the part-time services of one stenographer. Miss Bess Morrison was Acting Public Health Nutritionist until September, at which time Miss Elva Perdue returned from leave of absence.

Public Health Nursing Division

JEAN S. CLARK, R.N., B.Sc., M.P.H., *Director*

The Nursing Division has been fortunate in the past year to have had 32 of the 34 districts fully staffed, and the other two with part-time service provided by two married nurses living in the district who were formerly on our staff.

Miss Blanche A. Emerson has been Acting Director in the absence of Miss Jean S. Clark, B.Sc., M.P.H., with the Dominion Health Survey Committee.

Miss Laura Attrux, P.H.N., was in the office as Assistant Director a short while on her return from a Course in Midwifery in New York.

In July, Miss Marguerite Fitzsimmons, P.H.N., was appointed Assistant Director.

During the year there were nine permanent and four temporary appointments made. Two nurses returned from taking a Public Health Course; one nurse was married and remained on the staff. Three nurses were granted leave of absence to take Public Health courses. Three nurses resigned, one to be married; two because of illness, and five for other employment. Miss Attrux returned from the Course in Midwifery in New York and Kentucky prepared to give the Course in Advanced Practical Obstetrics at the University of Alberta, replacing Mrs. Barbara Eben. This course was not given owing to the shortage of nurses at the time, but Miss Attrux, who is stationed at Smith, gave special obstetrical training to several new nurses coming on the staff.

With potentially more staff available than in the past few years, consideration was given to the requests for new service. A new district was opened in September at Milk River. The community bought a fully modern cottage with complete furnishings, which has added greatly to the comfort and convenience of the nurse. Miss Mary Anderson was detailed to duty to establish this new district.

The district of Newbrook was closed in February when part of the district was included in the enlarged municipality.

Mrs. Barbara Eben, formerly of the district nursing staff, went to the Paddle Prairie Metis Colony in November, and communicated with this office for nursing advice and reports, which are included in our statistics.

Rural Districts—Alder Flats, Blueberry Mountain, Bonanza, Bow Island, Breton, Breynat, Craigmyle, Dixonville, Fawcett, Foremost, Fort Assiniboine, Grassland, Hemaruka, Hilda, Hines Creek, Kinuso, Lindale, Lomond, Mackay, Maloy, Milk River, New Brigden, Peers, Plamondon, Smith, Sunnynook, Tangent, Tulliby Lake, Valley View, Vauxhall, Whitecourt, Whitemud Creek, Worsley, Youngstown.

Regular clinics have been established at other points in the following mentioned districts:

Alder Flats, at Buck Lake and Pendryl; Fawcett, at Jarvie and Flatbush; Kinuso, at Canyon Creek, Widewater and Faust; Milk River, at Coutts; Smith, at Slake Lake; Tangent, at Eaglesham; Whitecourt, at Blue Ridge, Fort Assiniboine, at Timeu.

Vast improvements in the cottages have been made by the Nurses Home Committees by providing better insulation, oil burners, as well as numerous other improvements to the cottages. Our thanks go out to them all for all they have done on behalf of this important service. In addition the Public Health Nursing Division continue to provide supervision for the One-nurse Health Units, and these include: Athabasca Health Unit, Colinton, Alta.; Brooks Health Unit, Brooks, Alta.; McLeod-Pincher Creek Health Unit, Granum, Alta.; Pembina Health Unit, Barrhead, Alta.; Rocky Mountain Health Unit, Rocky Mountain House, Alta.; Spirit River Health Unit, Spirit River, Alta.; Wainwright Health Unit, Wainwright, Alta.; Wheatland Health Unit, Strathmore, Alta.

Urban and Child Welfare Centres—Calgary, Medicine Hat and Vegreville.

Staff Education

New staff members are given an orientation period in the Nursing Branch office before going to a district. If they have not had Public Health training, they spend a short time at the Immunization and Well Baby Clinic in Edmonton. The new nurse spends a few days with a senior nurse in a district before taking full charge of one herself.

A three-day institute was held on "Child Care and Development" at the University of Alberta, Easter week, which the district nurses attended. The fourth day was devoted to problems concerning the Division.

The quarterly twenty-page mimeographed News Letter continues to be sent to the nurses with articles on newer drugs; treatments, and items of interest applicable to their work. Due to limited personal contact with the nurses, numerous problems are dealt with by regular correspondence.

Supervision

Twenty-four supervisory visits were made during the year to the different districts; considerable supervision and guidance was given by office conferences at such time as the various nurses have had occasion to visit the nursing office. The task of supervision was possible through monthly reports submitted by each nurse. The nurses in the districts are very appreciative of any visit from the office, and many problems are solved at such times. On each visit a Nurse's Home Committee meeting is held to the mutual benefit of both nurse and district, and acts as a liaison between the district and the Department. Due to the fact that the nurses work alone, more personal supervision is felt to be essential.

Programme in Rural Areas

In the early part of the year there was an unusual outbreak of Diphtheria in five district nursing areas, with a total number of 22 cases being reported, which led to mass immunization programmes conducted in all of the districts.

With more nurses available; more districts have been opened, further increasing the total volume of work as shown in the following statistics. It is a much needed service in the rural areas where there is no medical aid. The programme of the urban area varies.

In Medicine Hat, Miss Hagerman has increased the Baby and Immunizations Clinics, with three clinics a month being held at Redcliff, once a month at the Airport and at Ralston-Suffield Experimental Station respectively. A Guidance Clinic was held once a month with Dr. Carson in attendance; follow-up work for T.B. was done in collaboration with the Central Alberta Sanatorium, and during the year 70 people were tuberculin tested. Eight Rocky Mountain Spotted Fever clinics were held. One-day Baby Clinics were held at Orion, Iddesleigh, Irvine, Walsh, Elkwater and Manyberries. Nineteen students spent three days each observing in the clinic, and two lectures were given to student nurses.

Miss Lavell, in charge of the Well Baby Clinic in Calgary, reports a branch clinic was started at the Nursing Aides School in the north-western part of the city. The Nursing Aides are given instruction in assisting in exchange for the use of two rooms, and the Public Health Nurse and a doctor attend the clinic held every two weeks, also a nurse from the Immunization Clinic. The attendance in nine months was 591. In May, an Infant and Pre-school Clinic was started at Currie Barracks with a nurse and doctor in attendance once a week, their attendance being 304. Lectures were given to the senior students at the Calgary General Hospital and to three other organizations. Miss Lavell also gave a report on 10 private nursing homes in Calgary.

Miss Black is continuing with the baby clinic, immunization clinic and school inspections as well as dealing with numerous welfare problems in her district in and around Vegreville.

Miscellaneous

Besides the usual administrative duties the Acting Director and her assistant arranged a display for the Nursing Division at the Edmonton Exhibition, also being on part-time duty at the exhibit.

Lectures on Public Health activities were given to senior nurses of the four hospitals in Edmonton, and a series of six lectures on Community Health were given at the School of Nursing in Lamont. Three talks on health topics and films were shown to a Young People's Church Group. A film was shown and a talk given to a second group of young people one Sunday evening. An evening was spent discussing the care of infants and children with special emphasis on communicable diseases with the Women's Social Club in Pleasant View Community Hall. Seven groups of fourth year medical students were given lectures on the working of the Nursing Division.

The services of the Alberta Maternity Fund maintained by the Provincial I.O.D.E., Alberta Women's Institutes and F.W.U.A. were continued, and in response to the requests from district nurses and needy families, layettes were distributed throughout the Province. Our thanks are due to these organizations for their generous contributions.

Field

Students from the various Schools of Nursing have had instructions at the Well Baby Clinic. Nineteen Public Health Nursing students obtained two weeks field experience in both district nursing centres and one-nurse health units.

The Public Health Nursing Division would like to take this opportunity to express its appreciation to all those who have aided in the furtherance of the work. To the Hon. Dr. Cross, Minister of Health, and Dr. Bow, Deputy Minister, who have given so generously of their attention to the problems of the Division; to all other Divisions of the Department and to other Provincial and National organizations. In the rural areas our nurses have been greatly helped by members of the medical profession, hospital staffs and teachers in the rural schools.

Finally, the Nursing Office wishes to commend the members of the staff who enable this service to be carried on so efficiently. The statistics which follow cannot begin to tell of the generous way they have served the community beyond the line of duty.

TABLE 1
REPORT OF DISTRICT NURSING CENTRES (EXCLUSIVE OF WORK
DONE IN SCHOOLS)

Treatment Consultations	21,038
Miscellaneous P.H. Consultations	7,173
Antepartum Consultations	1,540
Postpartum Consultations	326
Infant and Pre-school Consultations	4,507
Treatment Home Visits	4,642
Miscellaneous P.H. Home Visits	967
Communicable Disease Home Visits	1,289
Maternal Welfare Home Visits	345
Infant and Pre-school P.H. Home Visits	796
Deliveries	79
Abortions	47
Cases sent to Hospital or Doctor	1,202
Deaths (under 1 year)	12
Deaths (over 1 year)	22
Doses of different Sera given	20,311
Cases Communicable Disease Reported	1,272
Pieces P.H. Literature Distributed	3,401
Fees Collected	\$12,326.71
IMMUNIZATION WORK DONE AT OFFICE OR CLINIC:	
Measles Prophylactic	50
Diphtheria Toxoid	9,766
Scarlet Fever Toxin	3,087
Smallpox Vaccine	1,899
Whooping Cough Vaccine	5,479
Typhoid Fever Vaccine	39
Restaurant Inspections	5
Extra Baby Clinics	2

A very interesting Hot School Lunch programme was instigated by the nurse in the Fawcett school. This effort was extremely well organized and so worth while. When children are away from home all day, leaving early in the morning and not returning until late in the afternoon, hot nourishing food is essential to keep up their strength and build healthy bodies.

Many talks have been given in the communities to groups such as the Home and School Association, and the Nursing Aide Course. Classes consisting of nine lectures on Home Nursing with the use of films were given to a ladies' group.

Schick Tests	55
T.B. Patch Tests	4
V.D. Treatments	28

TABLE 2
REPORT OF CHILD WELFARE CLINICS

	Calgary	Medicine Hat (Redcliff)	Vegreville
Baby Clinic:			
No. in Attendance	9,026	4,195	416
New Cases Admitted	1,601	481	73
Old Cases Readmitted .....	.....	17	....
Out of Town Cases	192	117	....
Referred to Family Doctor	28	90	14
Discharged .....	.....	1	21
Deaths	2	....	....
No. of Cases on Roll	2,671	2,464	109
Transferred to Pre-school Clinics	1,706	122	32
Breast Fed	1,433	682	80
Bottle Fed	3,785	2,214	276
Other Feedings	3,308	1,263	60
Pre-School Clinic:			
No. in Attendance	3,028	938	6
New Cases Admitted	630	44	....
Out of Town Cases	18	55	....
Referred to Family Doctor	30	14	....
Discharged	1,769	388	40
Deaths	1	....	....
No. of Names on Roll	7,300	370	35
Visits:			
Baby Visits	4,301	215	....
Pre-school Visits	2,439	92	....
Pre-natal Visits	2	5	....
Special Visits	148	179	....
Private Hospital Inspection	60	....	....
Insulin Investigations	14	....	....
Total No. Visits	6,720	429	55
Attendance:			
No. Letters Written on work	9,567	271	17
Total No. Clinics Held	247	159	37
Total No. in Attendance	12,054	5,133	422
Total No. seen by Doctor	3,559	....	....
Diphtheria			676
Scarlet Fever			9
Whooping Cough			630
Smallpox			109
Total number of doses given (different sera)			1,424

TABLE 3

SCHOOL WORK—DIVISION OF PUBLIC HEALTH NURSING
(Including that done by both District Nurses and Child Welfare Clinic Staffs)

31 Districts	1949
1. Visits to Schools	475
2. Individual Inspections	6,824
3. Suspected Defects	4,324
(a) Defective Vision	1,062
(b) Defective Hearing	154
(c) Diseased Tonsils	1,702
(d) Unsound Teeth	2,569
(e) Eye Diseases	64
(f) Ear Diseases	44
(g) Enlarged Cervical Glands	624
(h) Enlarged Thyroid Glands	111
(i) Malnutrition	692
(j) Nervous Disorders	157
(k) Faulty Posture	400
(l) Orthopaedic Defects	13
(m) Ringworm	44
(n) Impetigo	49
(o) Scabies	57
(p) Other Skin Conditions	205
(q) Pediculosis	31
(r) Exclusions, Suspect Comm. Disease	143
4. Correction of Defects	493
5. Classroom Talks	158
6. Sanitary Inspection of Schools	291
7. Consultations with Teachers	286
8. Consultations with Parents	338
9. School Follow-up Home Visits	184
Total number of doses of the following:	
Diphtheria Toxoid	4,914
Scarlet Fever Toxin	1,165
Smallpox Vaccine	1,465
Whooping Cough Vaccine	1,863
Typhoid Fever Vaccine	28
Schick Tests	4

TABLE No. 4
SERVICE GIVEN BY ONE-NURSE HEALTH UNITS

Services Offered	Athabasca	Brooks	McLeod- Pincher Crk.	Pembina	Rocky Mtn. House	Spirit River	Wainwright	Wheatland	Total
School Health Programme:									
1. Visits to Schools	345	135	223	173	157	114	120	114	1,381
2. Students Inspected	1269	634	937	878	1153	1034	859	454	7,218
3. With Suspected Defects	1197	387	373	365	572	631	356	139	4,020
(a) Defective Vision	230	70	174	137	49	128	28	41	857
(b) Defective Hearing	56	70	174	137	49	128	28	41	107
(c) Diseased Tonsils	601	160	129	194	238	299	188	76	1,885
(d) Unsound Teeth	787	225	241	198	343	437	182	32	2,445
(e) Eye Diseases	55	...	2	4	4	9	9	...	83
(f) Ear Diseases	60	...	...	14	...	3	...	...	77
(g) Enlarged Cervical Glands	225	123	5	145	11	177	43	...	729
(h) Enlarged Thyroid Glands	78	...	...	...	2	30	...	...	110
(i) Malnutrition	497	55	...	4	10	50	18	15	640
(j) Nervous Disorders	140	3	...	4	15	53	4	...	219
(k) Faulty Posture	78	41	...	4	...	27	11	1	162
(l) Orthopaedic Defects	39	2	2	...	...	6	...	2	51
(m) Ringworm	2	...	...	...	2	7	4	...	15
(n) Impetigo	28	3	...	43	1	47	1	...	123
(o) Scabies	19	20	...	73	...	10	2	...	124
(p) Pediculosis	36	...	2	1	...	...	8	...	47
(q) Other Skin Conditions	132	...	...	42	1	2	1	6	184
(r) Exclusions, Suspected Commun- icable Disease .....	...	...	3	6	...	8	2	...	19
4. Correction of Defects	102	307	...	...	...	191	103	45	748
5. Classroom Talks	172	8	3	39	...	44	16	1	283
6. Sanitary Inspection of Schools	19	28	89	...	...	27	43	...	206
7. Consultations with Teachers	189	138	179	44	85	82	146	120	983
8. Consultations with Parents	97	634	...	49	7	180	32	1069	2,068
9. School follow-up Home Visits	123	22	84	19	11	80	24	59	423
10. Pre-school Children seen at School	635	179	...	248	...	278	...	...	1,092
Clinics:									
1. Child Welfare Clinics Held	73	52	104	77	97	82	73	106	664
Attendance:									
(a) Infants	152	543	1096	149	541	390	427	978	4,276
(b) Pre-schools	583	919	1311	387	1346	607	295	519	5,967
2. Pre-natal Home Visits	28	279	5	4	...	19	9	...	344
3. Infant Welfare Visits	12	7	50	17	...	62	18	3	169
4. Pre-school Home Visits	96	11	54	10	68	96	14	4	353
5. Tuberculosis Clinics Held .....	...	12	4	...	...	...	...	...	16
Attendance .....	...	...	17	...	...	36	...	15	53
6. Tuberculosis Home Visits	8	2	9	2	2	14	7	3	59
7. Mental Hygiene Home Visits	31	34	...	25	11	32	25	...	161
Immunizations:									
1. Total No. of Doses of the following:									
(a) Diphtheria Toxoid	1542	1778	2073	1546	428	216	449	434	8,466
(b) Scarlet Fever Toxin	4110	619	229	30	625	72	123	1369	7,147
(c) Smallpox Vaccine	1088	749	360	532	127	419	164	363	3,602
(d) Whooping Cough Vaccine	79	20	140	12	98	6	39	210	604
(e) Typhoid Fever Vaccine .....	...	149	9	...	...	720	...	11	889
(f) Whooping Cough Vaccine and Diphtheria Toxoid	933	774	1470	1186	573	968	603	...	6,507
2. Mantoux Tests and Patch Tests	5	2	...	...	20	47	20	216	310
3. Schick Tests	1	90	35	...	6	6	...	1	139
4. Dick Tests	4	1	1	...	45	...	2	3	56
Measles Serum .....	...	19	12	...	2	...	...	43	76
Communicable Disease Control:									
1. Visits to Cases, Contacts, Suspects ..	45	80	147	24	44	56	190	29	615
2. Cases Quarantined or Isolated	34	325	2	15	2	55	151	8	592
(a) Scarlet Fever	4	51	9	9	2	...	14	2	91
(b) Measles	83	162	139	30	19	45	33	34	545
(c) Chickenpox	3	100	24	3	...	18	43	25	216
(d) Mumps	3	8	48	...	...	...	47	13	119
(e) Whooping Cough .....	...	...	6	...	10	5	16	...	37
(f) Rubella	9	2	32	125	...	2	...	...	170
(g) Skin Conditions	1	25	...	...	...	3	1	...	30
(h) Other Conditions .....	...	17	9	...	1	1	3	...	31
3. Contacts Isolated	37	...	...	...	12	6	104	25	184
4. Throat Cultures Taken	15	19	...	...	...	1	24	...	59
Health Education:									
1. Interviews	495	105	1175	25	231	70	23	...	2,124
2. Lectures	24	20	13	...	5	6	5	6	79
Attendance	972	1003	526	...	170	147	82	288	3,188
3. Literature Distributed (approx.)	1380	1980	219	35	32	1331	130	1249	9,356
4. Films Shown	5	10	28	14	2	19	7	78	144
5. Newspaper Publicity	53	53	90	2	5	...	...	...	203
6. School Health Papers Published .....	...	...	...	...	...	...	7	...	7
7. Letters and Circulars	845	453	705	...	367	658	76	132	3,236
Restaurant Inspections .....	...	...	1	...	...	...	...	...	1
Water Samples to Lab. .....	...	...	3	...	...	...	...	...	3
First Aid .....	...	...	5	...	4	...	...	...	5
Guidance Clinics .....	...	...	3	...	...	...	...	...	7

Division of Social Hygiene

HAROLD ORR, O.B.E., M.D., D.P.H., F.R.C.P. (C), F.A.C.P., *Director*

The venereal disease rate is constantly going down, and during the year there were actually 92 fewer cases of gonorrhoea and 60 fewer cases of syphilis than during the preceding year. This is not quite as great a decrease as was noted in 1948, but since we are now at an all-time low, the actual reduction in the number of cases from year to year will be smaller, and then, of course, one must remember that our population is increasing rapidly.

A travelling clinic was fully organized and ready for service in December, 1949.

The Lethbridge Clinic, which was closed in 1945, was re-opened as a fully modern, up-to-date, well-staffed and well-equipped clinic. It is intended to serve not only Lethbridge, but the entire south-west corner of the Province.

A research on results of Malaria Pyrexia Therapy in the treatment of Neuro-syphilis in this Province over a period of twenty-five years has been undertaken by Dr. Margaret McWilliam and should be completed before the end of 1950. This work is being carried out under a special research grant from the Dominion Government.

The work of the Division in other respects has been continued as before. The following statistical report indicates the work of the Division during the year:

ALLEGED SOURCES OF VENEREAL INFECTION OR CONTACTS
For the Period January 1st, 1949—December 31st, 1949

Location of Source of Infection or Contact	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Found and brought under Treatment	Percentage of Sources of Infection or Contacts Found and brought under Treatment
Edmonton	504	425	84%
Calgary	303	266	88%
Lethbridge	32	27	84%
Medicine Hat	8	5	63%
Slave Lake Area	80	72	90%
Rest of Province	444	397	89%
Alberta Totals	1371	1192	86%
Sources of Infection or Contacts reported outside of the Province of Alberta	95	50	53%
	1466	1242	85%

Unit Forwarding Information	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Found and brought under Treatment	Percentage Sources of Infection or Contacts Found and brought under Treatment
Armed Forces	107	80	75%
Private Doctors and Provincial Clinics...	1292	1116	87%
Other Provinces	67	46	69%
Totals	1466	1242	85%
Sources of Infection in Alberta who could not be located by authorities concerned			179
Sources of Infection outside of Alberta who could not be located by authorities concerned			45

DETAILS OF INFORMATION OBTAINED ON THE FACILITATION PROCESS

How Informant Met Source of Infection or Contact				Where informant Met Source of Infection or Contact			
Pick-ups	456	31	%	Boarding house or rooming house	31	2	%
Introduction	77	6	%	Restaurant or beer parlour ...	244	16	%
Friend	87	6	%	Dance hall	121	8	%
Marital Partner or Common-law Wife	64	4	%	Street or outdoors	183	13	%
House of Prostitution	3	.2	%	Friend or private house	86	6	%
Appointment	35	2.4	%	Hotel	68	5	%
No data available	744	50	%	Marital partner	132	9	%
				Recreation or private party...	90	6	%
				Train, railway station, or bus depot	6	.4	%
				House of prostitution	3	.2	%
				Taxi or taxi office	15	1	%
				Service station, garage	2	.1	%
				At work	8	.6	%
				No data available	477	33	%

DETAILS OF INFORMATION OBTAINED ON THE CONTACT INVESTIGATION

Place of Exposure				Occupation of Source of Infection or Contact			
Rooming house or apartment .	119	8	%	Waitress	172	12	%
Private house	57	3	%	Housewife	84	6	%
Outdoors	82	6	%	Prostitute or street walker	51	3	%
Car or truck	141	10	%	Domestic, hotel or hospital maid, porter	74	5	%
Train, boat, auto-camp	14	1	%	Clerk, salesman, steno, teacher, cashier	60	5	%
House of prostitution	3	.2	%	Factory or plant worker	14	1	%
Taxi	3	.2	%	Service personnel	6	.4	%
Hotel	193	13	%	Unemployed	43	2	%
Room, house or shack	346	24	%	Laundress or dry cleaners	21	1	%
No data available	508	35	%	Truck or taxi driver	16	1	%
				Farmer, trapper, fisherman ..	23	2	%
				Student or nurse	6	.4	%
				Dressmaker, hairdresser, barber	4	.3	%
				Labourer or transient	70	5	%
				Business man, conductor	7	.5	%
				Mechanic, electrician, plumber	6	.4	%
				Trainman or railwayman	3	.2	%
				No data available	806	55	%

PROVINCIAL CLINIC, EDMONTON—Provincial Building, 10048 101A Avenue

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	1	20	39	398	131	....	....	589
Syphilis (congenital)	1	....	....	....	....	....	....	....	....	1
Acquired—Primary	7	....	....	....	7
Acquired—Secondary	3	2	2	....	....	7
Acquired—Latent	10	14	....	....	24
Acquired—Tertiary (Cardiovascular)	1	....	....	....	1
Acquired—Tertiary (Neurosyphilis)	2	1	....	....	3
Acquired—Tertiary (other)
Type Undetermined	1	....	....	....	....	....	....	....	1
Totals	—	—	—	—	—	—	—	—	—	—	—	—	—
	1	1	1	20	42	420	148	....	....	633

Number of cases of syphilis—Male 23, female 21 44
Number of cases of gonorrhoea—Male 418, female 171 589
Number and results of Wassermann tests: 6,400, of which 896 were positive.
Number and results of Cerebrospinal Fluid tests: 72, of which 18 were positive.
Number and results of Bacteriological tests for gonococci: 4,228, of which 622 were positive.
Number and results of cultures: 1,706, of which 514 were positive.

PROVINCIAL CLINIC, CALGARY—711 3rd Street East, Calgary

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	2	6	35	246	139	....	....	428
Syphilis (congenital)
Acquired—Primary	11	....	....	....	11
Acquired—Secondary	3	....	....	3
Acquired—Latent	1	6	6	6	....	....	13
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type Undetermined	1	....	....	....	1
Totals	—	—	—	—	—	—	—	—	—	—	—	—	—
	2	6	36	264	148	....	....	456

Number of cases of syphilis—Male 17, female 11 28
Number of cases of gonorrhoea—Male 252, female 176 428
Number and results of Kahn and Wassermann tests: 3,618, of which 516 were positive.
Number and results of Cerebrospinal Fluid tests: 18, of which 8 were positive.
Number and results of Bacteriological tests for gonococci: 3,325, of which 329 were positive.

PROVINCIAL CLINIC, MEDICINE HAT—Medicine Hat General Hospital, Medicine Hat

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms) .....	....	....	....	....	....	....	....	2	6	2	....	....	10
Syphilis (congenital)	1	1	....	....	....	....	....	....	....	....	....	....	2
Acquired—Primary .....	....	....	....	....	....	....	....	....	....	....	....	....	....
Acquired—Secondary .....	....	....	....	....	....	....	....	....	....	....	....	....	....
Acquired—Latent .....	....	....	....	....	....	....	....	....	....	1	....	....	1
Acquired—Tertiary (Neurosyphilis) .....	....	....	....	....	....	....	....	....	....	....	....	....	....
Acquired—Tertiary (Cardiovascular) .....	....	....	....	....	....	....	....	....	....	....	....	....	....
Acquired—Tertiary (other) .....	....	....	....	....	....	....	....	....	....	....	....	....	....
Type Undetermined .....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	—	—	—	—	—	—	—	—	—	—	—	—	—
	1	1	....	....	....	....	....	2	6	3	....	....	13

Number of cases of syphilis—Male 1, female 2 3
Number of cases of gonorrhoea—Male 6, female 4 10
Number and results of Kahn and Wassermann tests: 110, of which 40 were positive.
Number and results of Cerebrospinal Fluid tests: 4, of which 1 was positive.
Number and results of Bacteriological tests for gonococci: 19, of which 5 were positive.

PROVINCIAL GAOL—Lethbridge, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	4	....	....	....	4
Syphilis (congenital)
Acquired—Primary	1	....	....	....	1
Acquired—Secondary	1	....	....	....	1
Acquired—Latent	3	....	....	....	3
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosypilis)
Acquired—Tertiary (other)
Type Undetermined	3	....	....	....	3
Totals	12	....	....	....	12

Number of cases of syphilis—Male 8.	8
--	---

Number of cases of gonorrhoea—Male 4	4
--	---

Number of prisoners examined	1,352
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Number and results of Kahn and Wassermann tests: 1,331, of which 153 were positive.

PROVINCIAL GAOL—Fort Saskatchewan, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	12	12	35	....	....	59
Syphilis (congenital)
Acquired—Primary	1	....	....	....	1
Acquired—Secondary	1	1	2	....	....	4
Acquired—Latent	1	1	6	2	....	....	10
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other) Type Undetermined	1	1
Totals	—	—	—	—	—	—	1	14	21	39	—	—	75

Number of cases of syphilis—Male 10, female 6	16
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Number of cases of gonorrhoea—Male 12, female 47	59
--	----

Number and results of Kahn and Wassermann tests: 1,830, of which 221 were positive.

Number and results of Cerebrospinal Fluid tests: 16, of which 1 was positive.

Number and results of Bacteriological tests for gonococci: 3,889, of which 129 were positive.

McLENNAN CLINIC—McLennan, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals
Gonorrhoea (all forms)	2	3	16	2	....	....	23
Syphilis (congenital)
Acquired—Primary
Acquired—Secondary	1	....	1
Acquired—Latent
Acquired—Tertiary (Cardiovascular)
Acquired—Tertiary (Neurosyphilis)
Acquired—Tertiary (other)
Type Undetermined
Totals	—	—	—	—	—	—	2	3	16	2	—	1	24

Number of cases of syphilis—Male 0, female 1	1
--	---

Number of cases of gonorrhoea—Male 18, female 5	23
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Number and results of Kahn and Wassermann tests: 296, of which 10 were positive.

Number and results of Cerebrospinal Fluid tests: None.

Number and results of Bacteriological tests for gonococci: 75. of which 40 were positive.

PRIVATE PHYSICIANS REPORTING CASES

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	1	2	1	1	1	4	33	46	350	117	45	30	631
Syphilis (congenital)	3	...	1	4	2	2	...	...	...	1	1	1	15
Acquired—Primary .....	...	...	...	...	...	...	2	6	28	8	5	3	52
Acquired—Secondary .....	...	...	...	...	...	...	...	...	4	8	2	1	15
Acquired—Latent .....	...	...	...	...	...	...	1	2	17	24	6	7	57
Acquired—Tertiary (Cardiovascular) .....	...	...	...	...	...	...	...	...	3	1	2	...	6
Acquired—Tertiary (Neurosyphilis) .....	...	...	...	...	...	...	...	...	13	3	1	1	18
Acquired—Tertiary (other) .....	...	...	...	...	...	...	...	...	2	2	...	...	4
Type Undetermined .....	...	...	...	...	...	...	...	2	4	8	3	3	20
Totals	4	2	2	5	3	6	36	56	421	172	65	46	818

Number of cases of syphilis—Male 100, female 87	187
Number of cases of gonorrhoea—Male 431, female 200	631
Number of doctors in the Province receiving consultative service	275
Number of doses of Arsenicals distributed to private physicians	3,703
Number of doses of Bismuth distributed to private physicians	8,620
Number of units of Penicillin distributed to private physicians: 633 (3,000,000 units) Pro- caine-G in oil; 542 cartridges Procaine-G in oil (300,000); 306 bottles (200,000) aqueous Penicillin.	

NEW CASES OF SYPHILIS AND GONORRHOEA REPORTED IN ALBERTA, 1949

Total number of new cases of venereal disease classified as to sex and age of patient:

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms)	1	2	1	1	1	7	73	137	1086	426	46	30	1811
Syphilis (congenital)	4	1	1	5	2	2	...	...	...	1	1	1	18
Acquired—Primary .....	...	...	...	...	...	...	2	6	48	8	5	3	72
Acquired—Secondary .....	...	...	...	...	...	...	...	4	8	15	2	2	31
Acquired—Latent .....	...	...	...	...	...	...	2	4	42	47	6	7	108
Acquired—Tertiary (Cardiovascular) .....	...	...	...	...	...	...	...	...	4	1	2	...	7
Acquired—Tertiary (Neurosyphilis) .....	...	...	...	...	...	...	...	...	15	4	1	1	21
Acquired—Tertiary (other) .....	...	...	...	...	...	...	...	...	2	2	...	...	4
Type Undetermined .....	...	...	...	...	1	...	...	2	9	8	3	3	26
Totals	5	3	2	6	4	9	77	153	1214	512	66	47	2098

Total number of cases of syphilis—Male 160, female 127	287
Total number of cases of gonorrhoea—Male 1208, female 603	1811
	2098

RECAPITULATION

NEW PATIENTS ADMITTED TO THE VARIOUS CLINICS OF THE DIVISION
OF SOCIAL HYGIENE IN 1949

Sex	Syphilis	Gonorrhoea	Totals
Males	59	710	769
Females	41	403	444
Totals	100	1113	1213

CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES

	Private Physicians	Armed Forces	Totals
Syphilis	187	...	187
Gonorrhoea	631	67	698
Totals	818	67	885

Total number of cases of syphilis reported in Alberta	287
Total number of cases of gonorrhoea reported in Alberta	1811
	2098

Total number of cases of syphilis reported in Alberta exclusive of armed per- sonnel	287
Total number of new cases of gonorrhoea reported in Alberta exclusive of armed personnel	1744
	2031

Report of the Provincial Laboratory

R. M. SHAW, *Director*

The varied activities of the laboratory, I think, are rather clearly depicted in the appended tables. The demands on the laboratory were quite similar to those of previous years, but it will be noted there was a moderate increase of total numbers of specimens examined—173,506 as compared to 161,103 in 1948; thus registering an increase of 12,403 (7.7%) for the year. A reference to Table 1 will show that increases were quite evenly distributed among the majority of tests offered—only in the serological tests for syphilis is a remarkably large increase noted. Tests respecting the sensitivity of bacteria to the various antibiotics in current use were more frequently requested. While the numbers of these tests are still small, yet they are more than double those of previous years.

During the years 1948-49, the laboratory in common with other provincial laboratories submitted to a survey in relation to serological tests for syphilis. Some 200 bloods were distributed from Ottawa, and the results of each laboratory compared with those of the control, viz., the Laboratory of Hygiene, The Department of National Health and Welfare, Ottawa. Our laboratory made a very creditable showing in that on standard tests of sera from syphilitic patients under treatment—the result was within 3% of that of the control, while for negative specimens the corresponding figure did not exceed 0.5%.

Two technicians were granted leave for special training in their particular spheres of work.

Miss Jessie Cowles, employed on tissue pathology, received instruction and gained experience in special tissue sectioning and staining at the Banting Institute in Toronto and the University of Montreal in Montreal.

Miss Ethel Shelene, with funds provided from the Dominion Health Grants, was given refresher training of three weeks duration, in serology at the Laboratory of Hygiene, Ottawa, and visited the public health laboratories of Quebec and Ontario, situated respectively in Montreal and Toronto, for purposes of observing the serological techniques of these large laboratories in routine operation.

The Southern Branch, mentioned in last year's report as under construction on the grounds of the Central Alberta Sanatorium, was completed and ready for occupation in December, 1949. Doors were opened for service to the public on January 3rd, 1950. This branch is undertaking for the south of the Province work almost identical in scope with that done in Edmonton.

Dr. Dennis Shute, who arrived from England during the year, was appointed Director. At the opening he was supported by a staff of ten persons whose special training had been received in the main laboratory in Edmonton.

At the close of 1949 construction of the Alberta Public Health Institute was well advanced. When completed it will house the Provincial Laboratory.

Mr. Gordon Myers, M.Sc., was granted two years' leave of absence for purposes of pursuing post-graduate studies in bacteriology at McGill University.

Mr. A. B. Lamb, B.Sc., accepted appointment as Assistant Professor in the Department of Bacteriology and Assistant Bacteriologist in the Provincial Laboratory, and reported for duty September 1st.

It is felt that at this time it might serve a useful purpose to introduce a table showing the growth of work during the years the Provincial Laboratory of Public Health has been housed in the East Wing of the Medical Building, viz., 1921-1949. Removal to the new quarters in the Alberta Institute of Health, it is expected, will take place late in the summer of 1950.

The Table No. 14 shows the numbers and kinds of specimens examined every fourth year beginning with the year 1922.

TABLE 1

WORK PERFORMED IN THE PROVINCIAL LABORATORY DURING THE YEAR 1949

	Total, 1948	Total, 1949	Increase	Decrease
Sputum Examinations	768	973	205	....
Diphtheria and Haemolytic Streptococci	3,713	4,704	991	....
Typhoid Fever (Agglutination test)	1,698	2,118	420	....
Milk	1,278	1,125	....	153
Water	4,608	5,190	582	....
Guinea Pig Inoculations	1,886	1,716	....	170
Miscellaneous Bacteriology	6,805	7,057	252	....
Blood Cultures	764	780	16	....
Enterobacteria and Intestinal Parasites	1,362	1,079	....	283
Urinalysis	10	16	6	....
Medico-Legal Examinations (Blood, seminal, etc.)	5	7	2	....
Cerebro-Spinal Fluids for the Wassermann Test	2,958	3,043	85	....
Bloods for Quantitative Kahn test	2,815	2,845	30	....
Bloods for the Wassermann Test	10,322	11,286	964	....
Bloods for the Standard Kahn Test	9,992	10,903	911	....
Bloods for the Presumptive Kahn Test	74,635	85,230	10,595	....
Smears for the Gonococcus	14,202	12,701	....	1,501
Cultures for Gonococcus	2,897	1,788	....	1,109
Van Den Bergh Determinations	189	106	....	83
Pathological Histological Material	11,089	11,240	251	....
Blood Smear Examinations	230	159	....	71
Post-mortem Examinations (Edmonton)	367	321	....	46
Post-mortem reports (outside points) .....	....	137	137	....
Ascheim-Zondek Tests	472	737	265	....
Comparative Series	8	13	5	....
Fluids for Cancer Cells	116	177	61	....
Cancer Cytology .....	....	36	36	....
Bone Marrows	56	40	....	16
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	3,233	3,426	193	....
Bacteriological Examinations (P.M.)	159	67	....	92
B. abortus Examinations (Agglutination test)	1,719	2,118	399	....
B. tularensis (Agglutination test)	1,698	2,118	420	....
B. melitensis (Agglutination Test)	3	....	....	3
Cattle Blood (Bang's Disease Agglutination test)	1,046	150	....	896
Total.....	161,101	173,506	16,826	4,423

TABLE 2

DETAIL OF EXAMINATIONS OF MILK PERFORMED THROUGHOUT THE YEAR 1949

	1948	1949
Number of milks examined bacteriologically	1,278	1,125
Number of milks examined for butterfat	135	155
Number of milks examined for B. coli	384	179
Number of milks tested by the Phosphatase Test	52	77
Number of ice creams examined	59	40
Number of rinse waters examined bacteriologically	32	20

TABLE 3
DETAILS OF THE BACTERIOLOGICAL AND CHEMICAL EXAMINATIONS OF
WATER PERFORMED THROUGHOUT THE YEAR 1949

	1948	1949
Number of samples of water examined bacteriologically and found fit for human consumption	2,455	2,511
Number of samples of water examined bacteriologically and found unfit for human consumption	758	853
Number of samples of water examined bacteriologically and chemically and found fit for human consumption	256	386
Number of samples of water examined bacteriologically and chemically and found unfit for human consumption	262	294
Number of samples of water examined chemically and found fit for human consumption	575	867
Number of samples of water examined chemically and found unfit for human consumption	274	261
Number of samples of ice examined bacteriologically and found fit for human consumption	24	18
Number of samples of ice examined bacteriologically and found unfit for human consumption	4	....

TABLE 4
DETAIL OF SOME OF THE WORK DONE BY THE LABORATORY IN RELATION
TO THE CONTROL OF TUBERCULOSIS

Specimen	Examined by smear, animal inoculation and culture	Positive	% Positive	Negative	% Negative
Sputum and Gastric Washings ...	449	64	14.2	385	85.8
Urine	478	69	12.3	409	87.7
Pleural Fluids	135	34	25.2	101	74.8
C.S.F.	120	23	19.2	97	80.8
Joint Fluids	52	3	5.5	49	94.5
Abdominal Fluids	9	1	11.0	8	89.0
*Miscellaneous Specimens	107	25	23.4	82	76.6
Total	1,350	219		1,131	
Sputums examined by smear only	973	62	7.4	909	92.4
Grand Total.....	2,323	281		2,040	

*Miscellaneous specimens include swabs and pus of unspecified or unique origin, stools, milks, etc.

TABLE 5
TESTS MADE IN RESPECT TO THE USE OF ANTIBIOTICS, PENICILLIN,
STREPTOMYCIN AND AUREOMYCIN

Determination	No. Done
Penicillin sensitivity of a variety of organisms isolated from cases of infection..	48
Penicillin Blood Level	5
Streptomycin sensitivity of Mycobacterium tuberculosis isolated from cases ...	64
Streptomycin sensitivity of other bacteria	19
Streptomycin Blood Level	158
Streptomycin Urine Level .....	....
Aureomycin sensitivities	5

TABLE 6
BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER,
DYSENTERY AND RELATED INFECTIONS

Stool and urine cultures	1,079
Blood cultures	2,156
Bloods examined by agglutination test for typhoid and related fevers, undulant fever and tularaemia	2,120

Details of Results						
Source	Salmonella Typhi	S. para- typhi B.	Other Salmonella	Shigella	Negative	Total
Stool cultures	43	14	37	32	823	949
Urine cultures	19	....	1	....	110	130
Blood cultures	9	....	....	....	....	2,156
Duodenal drainage	1	....	....	....	3	4
Osteomyelitis	1	....	1*	....	....	2
Total isolations	73	14	39	32	936	3,241
Number of cases	17	1†	30	25		
Number of carriers	2	2	....	....

*S. paratyphi C. from osteomyelitis.
†Case first identified in end of 1948. Still ill in 1949.

Details of Salmonella Cases and Carriers			
S. typhi-murium	19	S. oranienburg	1
S. newport	6	S. paratyphi C.	1
S. senftenberg	1		
S. barielly	1	Total cases.....	30
S. thompson	1		

Cultures received from Animal Sources Supplied by Dr. E. E. Ballantyne,
Provincial Veterinarian

Cultures from Poultry:		From Other Animals:	
S. oranienburg	18	S. typhi-murium	1
S. typhi-murium	11	S. cholerae-suis	3
S. gallinarum	10	S. bredeney	1
S. thompson	6	P. pseudotuberculosis	1
S. senftenberg	3		
S. anatum	2	Total.....	6
S. newport	1		
S. pullorum	1		
Not further identified	1		
Total	53		

Shigella Isolations

Sh. sonnei	28
Sh. flexneri	4
Total.....	32

TABLE 6A
INTESTINAL PARASITES

Number of specimens examined and found negative for parasites—156.

Showing Ova:		Showing Cysts and Protozoa:	
Trichuris trichiura	11	Entamoeba coli	26
Enterobius vermicularis	5	Entamoeba histolytica	11
Ascaris lumbricoides	2	Endolimax nana	3
Hookworm	6	Chilomastix mesnili	1
	—	Giardia lamblia	4
	24	Iodamoeba butschlii	1
Worms or portions of Worms:			—
Ascaris lumbricoides	7		46
Taenia saginata	1		
Enterobius vermicularis	1		
	—		
	9		
Total.....	235		

TABLE 7
BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS
FOR THE DIAGNOSIS OF SYPHILIS DURING THE YEAR 1949

Bloods Examined—Presumptive Kahn	85,230
Standard Kahn	10,903
Quantitative Kahn	2,845
Wassermann (Kolmer)	11,286
Cerebro-spinal fluids examined by Wassermann (Kolmer) Test	3,043
Bloods and cerebro-spinal fluids unsuitable for examination (N.S.Q., A.C., Haem., Accidentally broken)	2,323
Bloods broken and leaked in transit	294
Bloods and cerebro-spinal fluids “Positive” to reaction	2,750
Bloods and cerebro-spinal fluids “Negative” to reaction	83,563
Bloods and cerebro-spinal fluids giving “Doubtful Please Repeat” reaction	846
Bloods giving “Please Repeat” reaction	1,651
Bloods giving “Report as is”	123
Bloods giving “N.S.Q. Please Repeat”	341
Number of bloods and cerebro-spinal fluids examined in 1948	77,593
Number of bloods and cerebro-spinal fluids examined in 1949	89,173
Increase in number of specimens examined	11,580
Increase in per cent	14.92%

TABLE 8
BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS
FOR THE DIAGNOSIS OF SYPHILIS, BY THE MONTH, DURING THE YEAR 1949

	Presumptive Kahn Test	Standard Kahn Test	Quantitative Kahn Test	Blood Wasserm’n	C.S.F. Wasserm’n	Unsuitable (N.S.Q., A.C., Haem.)
January	6,123	862	206	885	250	269
February	5,854	926	226	948	217	250
March	7,190	993	326	1,042	298	114
April	7,147	1,195	274	1,235	262	102
May	7,394	987	247	1,023	254	117
June	8,264	879	265	924	255	143
July	7,177	766	210	775	234	172
August	7,520	1,010	261	1,045	281	190
September	7,048	903	254	927	266	154
October	7,490	689	213	712	229	128
November	7,892	877	184	924	262	177
December	6,131	816	179	846	235	507
Totals.....	85,230	10,903	2,845	11,286	3,043	2,323

TABLE 9
PREMARITAL BLOODS SUBMITTED FOR SEROLOGICAL TESTS FOR SYPHILIS
DURING THE YEAR 1949

	Negative	Positive	Doubtful Please Repeat	Please Repeat	N.S.Q. Please Repeat	Report as is	Unsuit- able	Total
January	669	2	2	4	1	....	39	717
February	582	1	...	8	1	....	50	642
March	762	9	1	4	1	...	8	785
April	1,022	2	2	11	1	1	22	1,061
May	1,170	11	2	9	1	....	23	1,216
June	1,803	6	1	9	1	....	24	1,844
July	1,564	3	3	12	...	....	20	1,602
August	1,442	3	...	6	4	....	15	1,470
September	1,413	4	1	5	3	...	13	1,439
October	1,835	..	....	11	2	1	22	1,871
November	1,649	5	1	7	2	....	28	1,692
December	1,126	8	5	9	1	....	151	1,300
Total ...	15,037	54	18	95	18	2	415	15,639

TABLE 10
SEROLOGICAL TESTS FOR SYPHILIS DONE FOR THE MILITARY AUTHORITIES
DURING THE YEAR 1949

	Airforce	Army	Navy	Total
Wassermanns:				
Bloods	36	7	....	43
C.S.F.	3	7	....	10
Kahns:				
Presumptive	1,551	58	....	1,609
Standard	36	8	....	44
Quantitative	4	4	....	8
Total.....	1,630	84	....	1,714

TABLE 11
SERA AND VACCINE DISTRIBUTED DURING THE YEAR 1949

	Total 1948	Total 1949
Smallpox Vaccine:		
1 point	2,022	3,474
10 points	4,402	6,497
Diphtheria Antitoxin, in syringe:		
1,000 units	453	838
5,000 units	89	143
20,000 units	295	468
10,000 units .....	.....	53
Diphtheria Toxoid:		
1 person	3,712	7,545
3 c.c.	287	1,331
6 c.c.	640	1,951
Diphtheria Toxoid and Pertussis (combined)		
Old:		
1 person (3x2 c.c. ampoules)	6,128	149
6 persons (6x6 c.c. ampoules)	1,193	.....
Diphtheria Toxoid and Pertussis (combined)		
New:		
1 person (4x1 c.c. ampoules)	4,394	14,189
9 persons (6x6 c.c. ampoules)	1,008	4,021
Schick Test: 25 persons	487	812
Scarlet Fever Antitoxin:		
3,000 units (syringe)	98	467
9,000 units (vial)	152	157
9,000 units (syringe)	144	242
Scarlet Fever Toxin:		
Strength "A"—30 doses (large)	106	57
Strength "B"—30 doses (large)	271	180
Strength "C"—30 doses (large)	110	80
Strength "D"—30 doses (large)	131	107
Strength "E"—30 doses (large)	183	188
1 person	2,807	2,704
6 persons	1,605	1,691
3 c.c. (Tannic Acid Precipitated)	400	.....
Dick Test: 10 persons	663	547
Tetanus Toxoid: 1 person	185	150
Tetanus Antitoxin:		
1,500 units	663	878
5,000 units	11	18
10,000 units	13	141
Pertussis Vaccine, old:		
1 person (3x2 c.c. ampoules)	1,997	152
6 persons (6x6 c.c. ampoules)	331	43

TABLE 11—Continued

	Total 1948	Total 1949
Pertussis Vaccine, new:		
1 person (4x1 c.c. ampoules).....	1,975	2,874
9 persons (6x6 c.c. ampoules)	331	278
Staphylococcus Toxoid: 2 c.c. vial	213	245
Staphylococcus Antitoxin:		
10,000 units .....	.....	6
20,000 units	5	1
Gas Gangrene Antitoxin:		
4,000 units	163	232
10,000 units	86	105
Typhoid-Paratyphoid Vaccine:		
1 person	585	723
10 c.c.	1,208	832
Anti-Measles Serum: 5 c.c.	1,171	3,876
Immune Serum Globulin:		
2 c.c. ....	.....	100
10 c.c. ....	.....	25
Diluted Diphtheria Toxoid:		
1 person	8	136
2½ c.c. (Reactors)	1	1
Anti-H. Influenza Serum: Type B (Serum- Rabbit)	3	2
T.A.B.T. Vaccine: 3 c.c.	58	558
Rocky Mountain Spotted Fever Vaccine:		
1 c.c.	878	.....
3 c.c. ....	.....	12
Other Vaccines:		
Autogenous Vaccine, 25 c.c. bottle	40	24
Stock Vaccine, 25 c.c. bottle	3	.....

TABLE 12

AMOUNT OF AUTOGENOUS AND OTHER VACCINE PREPARED AND
DISTRIBUTED DURING THE YEAR 1949

	Total, 1948	Total, 1949	Increase	Decrease
Autogenous Vaccine (25 c.c. quantity)	40	24	....	16
Stock Vaccine (25 c.c. quantity)	3	....	....	3

TABLE 13

COMMERCIAL VALUE OF WORK IF MINIMUM CHARGE WERE MADE, 1949

Sputum Examinations	973	\$ 1.00	\$ 973.00
Diphtheria and Haemolytic Streptococci	4,704	1.00	4,704.00
Typhoid Fever (Agglutination tests)	2,118	1.00	2,118.00
Milk	1,125	3.00	3,375.00
Water	5,190	10.00	51,900.00
Guinea pig inoculations	1,716	3.00	5,148.00
Miscellaneous Bacteriology	7,057	3.00	21,171.00
Blood cultures	780	3.00	2,340.00
Enterobacteria and Intestinal Parasites	1,079	3.00	3,237.00
Urinalysis	16	1.00	16.00
Medico-Legal (Blood, seminal, etc.)	7	5.00	35.00
Cerebro-Spinal Fluids for Wassermann Test	3,043	1.00	3,043.00
Bloods for the Quantitative Kahn Test	2,845	.....	.....
Bloods for Wassermann Test	11,286	1.00	11,286.00
Bloods for Standard Kahn Test	10,903	1.00	10,903.00
Bloods for Presumptive Kahn Test	85,230	1.00	85,230.00
Smears for the Gonococcus	12,701	1.00	12,701.00
Cultures for Gonococcus	1,788	1.00	1,788.00
Van Den Bergh Determination	106	1.00	106.00
Pathological Histological material	11,340	5.00	56,700.00
Blood Smear Examinations	159	2.00	318.00
Ascheim-Zondek Tests	737	5.00	3,685.00
Comparative Series	13	3.00	39.00
Fluids for Cancer Cells	177	5.00	885.00
Bone Marrows	40	5.00	200.00
Cancer Cytology	36	2.00	72.00
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	3,426	2.00	6,852.00
Bacteriological Examinations (P.M.)	67	5.00	335.00
Agglutination Test:			
B. abortus Examinations	2,118	.50	1,059.00
B. tularensis Examinations	2,118	.50	1,059.00
B. melitensis .....	.....	.50	.....
Cattle Blood (Bang's Disease Agglutination Test)	150	.10	15.00
Autogenous Vaccine	24	5.00	120.00
Stock Vaccine .....	.....	3.50	.....
Total.....			\$291,413.00

TABLE 14

	1922	1926	1930	1934	1938	1942	1946	1949
Sputum for T.B.	451	572	714	677	858	651	768	973
Diphtheria and Haemolytic Streptococci	1,229	663	2,408	722	2,226	2,289	1,788	4,704
Miscellaneous Bacteriology	837	2,035	2,525	2,590	3,504	3,750	5,865	8,916
Milks	628	1,061	1,365	2,096	1,309	1,108	912	1,125
Waters (Bacteriological)	412	1,381	1,955	1,421	1,463	2,649	2,570	3,382
Typhoid and Paratyphoid Agglutinations ...	217	142	322	264	627	437	881	2,118
Tularemia Agglutinations .....	.....	.....	.....	136	623	436	881	2,118
Brucella Agglutinations .....	.....	.....	.....	223	623	436	881	2,118
Mothers' Milk	61	34	42	8	1	1	.....	.....
Urinalysis .....	.....	.....	512	121	112	95	34	16
Medico-Legal Miscellaneous .....	.....	6	17	18	25	5	9	7
Van den Bergh .....	.....	1,304	131	4,023	3,642	1,511	288	106
Icterus Index .....	.....	1,304	2,909	31	.....	.....	.....	.....
C.S.F. Colloidal Gold and Pandy .....	.....	.....	.....	1,321	1,941	2,099	3,284	3,426
Post-mortem Bacteriology .....	.....	.....	.....	35	128	52	89	67
Ascheim Zondek .....	.....	.....	.....	95	167	314	383	737
C.S.F. Wassermann	5,008	10,159	13,541	20,316	30,530	30,851	{ 3,097	3,043
Blood Wassermann .....	.....	.....	.....	.....	.....	.....	{ 9,221	11,286
Presumptive Kahn, Blood .....	.....	.....	.....	.....	.....	40,611	99,009	85,230
Standard Kahn, Blood .....	.....	.....	.....	.....	.....	.....	8,697	10,903
Quantitative Kahn, Blood	1,346	2,270	2,904	3,441	4,877	7,317	1,556	2,845
Smears for Gonorrhoea	1,501	4,495	6,168	3,608	9,425	6,243	17,577	12,701
Surgical Pathology .....	.....	.....	80	97	109	124	9,321	11,340
Blood Smears .....	.....	.....	112	202	249	201	154	159
Post-mortems (Edmonton) .....	.....	.....	.....	.....	.....	.....	280	321
Post-mortems (outside points) .....	.....	.....	.....	.....	.....	24	.....	137
Medico-Legal Post-mortems .....	.....	.....	.....	.....	.....	18	41	13
Comparative Series .....	.....	.....	.....	.....	.....	.....	.....	177
Fluids for Cancer Cells .....	.....	.....	.....	.....	.....	.....	.....	40
Bone Marrows .....	.....	.....	.....	.....	.....	.....	.....	36
Cancer Cytology .....	.....	.....	.....	.....	.....	.....	.....	.....
Typhoid Vaccine (c.c.)	1,825	110,000	6,850	3,300	9,750	4,920	.....	.....
Autogenous Vaccine (c.c.) .....	.....	.....	3,725	1,300	625	250	575	600
Stock Vaccine (c.c.)	575	80,000	.....	.....	.....	275	75	.....
Polio Serum (bottles) .....	.....	.....	342	86	315	12	.....	.....
*Chicken Bloods .....	.....	.....	14,593	45,719	48,265	.....	.....	.....
Chicken Blood Containers .....	.....	.....	21,909	74,321	.....	.....	.....	.....
Sera and Vaccine distributed (pkgs.) .....	.....	.....	.....	10,844	18,052	34,966	39,512	59,303
Cattle Bloods .....	.....	.....	161	761	2,384	1,560	1,421	150

*Chicken bloods done by special staff employed for the purpose and paid for by charges for the test.

*Report of Routine Mycology carried out at the Provincial
Laboratory during the year 1949.*

The tissues and exudates of 309 patients were examined for the presence of fungi, and in 89 of them pathogenic fungi were demonstrated.

E. SILVER KEEPING,
Mycologist.

Sanitary Engineering Division

D. R. STANLEY, B.Sc., S.M. (C.E.), *Director*

The extraordinary prosperity that prevailed in Alberta during 1949 created an unprecedented amount of work for the Division of Sanitary Engineering. Since 1946, the picture has completely changed in that there has been a tremendous increase in all phases of the work carried out by the Division. The rate of building has made it very difficult for communities to give the needed water and sewer service or for plumbers to keep pace with the need for proper plumbing facilities. The increased interest of the public in restaurant, milk and general sanitation has greatly increased the work in these lines.

Mr. J. Butterfield, C.S.I. (C), Chief Sanitary Inspector with the Division, retired in September, 1949, after thirty years of service. Mr. Butterfield was the oldest employee from point of service in the employ of the Department, and his loss to the Division will be greatly felt.

Mr. W. A. Milligan, licensed plumber and C.S.I. (C), was promoted to the position of Chief Plumbing Inspector, and Mr. L. E. Stewart, C.S.I. (C), was promoted to the position of Chief Sanitary Inspector. Mr. G. L. Watson, licensed plumber, was appointed as a plumbing inspector with headquarters in Lethbridge.

Under the Dominion Government Health Grant Project for Sanitary Inspectors, the staff was increased as follows: Mr. J. E. Hoskins, C.S.I. (C), was employed in July, 1949, with headquarters in Edmonton. Mr. S. Johnsen, C.S.I. (C), was employed in September, 1949, with headquarters in Calgary. Mr. H. Dean, Cert. S.I.B., A.R.San.I., and Mr. E. Tyler, Cert. S.I.B., A.R.San.I., emigrated from England during the latter part of 1949, and were employed with headquarters at Lethbridge and Vermilion respectively. This decentralization of inspection staff has greatly increased the operating efficiency of the Division, principally by reducing the amount of travelling and having enough staff to carry out a small amount of control work in areas outside of cities and full-time health units.

The general administration of most Public Health Regulations throughout the Province is indirectly the responsibility of the Division of Sanitary Engineering. The direct responsibility for enforcing these regulations is that of the local boards of health of cities, towns, villages, municipal districts and health units. In the health units and cities having full-time qualified sanitary inspectors, the enforcement of regulations is quite satisfactory. However, in areas where full-time qualified inspectors were not carrying out routine inspections, local boards of health found considerable difficulty in coping with their sanitary problems. With the additions to the sanitary inspection staff, it has been possible to give these local boards of health considerable guidance and help especially with restaurant sanitation.

In order to maintain adequate control over restaurants, milk supplies and other phases of sanitation, it would be necessary to

employ more inspectors. The conditions, however, have been greatly improved since the employment of the new men. The work mentioned above is in addition to the established practice of investigating and dealing with all complaints and inquiries. Since placing men in the field, there has been a big increase in the number of these inquiries because the public has become aware that help was available for advice on their sanitation problems.

The year 1949 was the third year in which routine inspection of tourist camps was carried out. This programme has proven to be very valuable in that the sanitation in tourist camps has markedly improved along with the standard of accommodation. Many favourable comments have been received from the travelling public and organizations connected with the tourist trade in regard to the administration of the tourist camp regulations.

The proper sanitary control of restaurants and milk supplies especially in areas not covered by full-time inspectors, continued to be a major problem. With the employment of additional inspectors, indications are that much of the trouble will be overcome. Close co-operation was maintained with the Dairy Branch of the Department of Agriculture, and the Division was always kept informed of conditions in dairy plants they inspected. The Village of Calmar passed a compulsory pasteurization bylaw under the authority of Section 7(a) of The Public Health Act, and one new pasteurizing plant was installed in the Province.

During the year, 101 complaints and requests for inspection were attended to. Some of these included requests for inspection of complete towns and villages including restaurants, milk supplies and general sanitation. Despite the fact that additional inspectors joined the staff late in the year, a total of 357 inspections were made on restaurants, milk producers and tourist camps.

During the year, copies of reports of 2,739 bacteriological analyses, 1,140 chemical analyses of water and 30 bacteriological analyses of ice were forwarded to the Division. In cases where contamination was indicated, the persons were advised as to procedures to follow, where possible, in order to restore the quality of the water to a safe condition and how to protect their supply from further contamination. Where practical, this advice given by letter was followed up by a visit from one of the sanitary inspectors.

In response to requests received by the Department of Education and different school boards, a number of rural schools were inspected. Conditions were found that revealed a great need for routine inspection of schools for the purpose of aiding school boards to improve sanitary conditions. If more inspectors were employed, the Division would be able to carry out considerably more work in this field.

Final certificates of approval covering the establishment of six cemeteries were issued during the year.

The activity in the waterworks and sewerage fields was greater than any previous year. The Towns of Didsbury, Nanton, Strathmore and Wainwright, and the Villages of Legal and Trochu commenced water and sewer systems. Besides these, many other communities extended and renovated existing systems. The tremendous increase in the number of small community systems has greatly increased the problems of operation. The small town water and

sewer system should have a considerable amount of professional supervision in its operation. However, in most cases the systems are too small to justify the employment of a qualified sanitary engineer on a full-time basis, and therefore outside supervision is a very important factor both from a public health and economic point of view. Such supervision should be given by the Division of Sanitary Engineering, but before this service could be rendered it would be necessary to employ more qualified engineers.

The following certificates were issued by the Provincial Board of Health covering waterworks, sewerage and hospital construction:

1. Town of Edson, Provisional Certificate No. 610-49. Proposed Sewerage System. Estimated cost, \$139,000.00.
2. Town of Edson, Provisional Certificate No. 611-49. Proposed Water Main Extensions and Well Construction. Estimated cost, \$36,000.00.
3. Devon Estates Ltd. (Hamlet of Devon), Final Certificate No. 612-49. Proposed Water Works System.
4. Devon Estates Ltd. (Hamlet of Devon), Final Certificate No. 613-49. Proposed Sewerage System.
5. Town of High River, Final Certificate No. 614-49. Proposed Sewer Extensions. Estimated cost, \$12,750.00.
6. Town of Didsbury, Provisional Certificate No. 615-49. Proposed Sewerage System and Water Works. Estimated cost, \$166,000.00.
7. Town of Didsbury, Final Certificate No. 616-49. Proposed Sewerage System and Water Works. Estimated cost, \$166,000.00.
8. Town of Nanton, Provisional Certificate No. 617-49. Proposed Sewerage Works. Estimated cost, \$48,554.00.
9. Town of High River, Final Certificate No. 618-49. Proposed Extensions. Estimated cost, \$40,000.00.
10. Certificate No. 619-49 cancelled.
11. Town of Strathmore, Provisional Certificate No. 620-49. Proposed Sewerage System. Estimated cost, \$47,000.00. Supersedes Certificate No. 581-47.
12. City of Lethbridge, Final Certificate No. 621-49. Proposed Sanitary Sewer including Sewage Pumping Station. Estimated cost, \$67,508.00.
13. City of Lethbridge, Final Certificate No. 622-49. Proposed Sanitary Sewer. Estimated cost, \$51,117.00.
14. City of Edmonton, Final Certificate No. 623-49. Proposed Watermains. Estimated cost, \$398,330.71.
15. City of Calgary, Final Certificate No. 624-49. Proposed Sewers. Estimated cost, \$53,700.00.
16. City of Calgary, Final Certificate No. 625-49. Proposed Sewer and Sewer and Water Connections. Estimated cost, \$110,718.73.
17. City of Calgary, Final Certificate No. 626-49. Proposed Sewers. Estimated cost, \$13,504.82.
18. City of Calgary, Final Certificate No. 627-49. Proposed Sewers. Estimated cost, \$24,769.65.
19. City of Calgary, Final Certificate No. 628-49. Proposed Sewers. Estimated cost, \$5,350.03.
20. Town of Strathmore, Final Certificate No. 629-49. Proposed Sewerage System. Estimated cost, \$47,000.00.
21. Town of Innisfail, Final Certificate No. 630-49. Proposed Water and Sewer Extensions. Estimated cost, \$3,000.00.
22. City of Calgary, Final Certificate No. 631-49. Proposed Water and Sewer Connections. Estimated cost, \$125,000.00.
23. City of Lethbridge, Final Certificate No. 632-49. Proposed Storm Sewer Extensions. Estimated cost, \$31,083.00.
24. City of Lethbridge, Final Certificate No. 633-49. Proposed Water Main Extensions and Renewals. Estimated cost, \$100,000.00.
25. Glendon Municipal Hospital District, Final Certificate No. 634-49. Proposed Municipal Hospital. Estimated cost, \$58,000.00.

25. Village of Trochu, Final Certificate No. 635-49. Proposed Water Works System. Estimated cost, \$35,000.00.
27. Grande Prairie Municipal Hospital District, Final Certificate No. 636-49. Proposed Municipal Hospital. Estimated cost, \$125,000.00.
28. Village of Trochu, Final Certificate No. 637-49. Proposed sewerage Works. Estimated cost, \$42,000.00.
29. City of Calgary, Final Certificate No. 638-49. Proposed Sewer Construction. Estimated cost, \$81,000.00.
30. Town of Vegreville, Final Certificate No. 639-49. Proposed Storm Sewer Construction. Estimated cost, \$28,000.00.
31. Village of Lamont, Final Certificate No. 640-49. Proposed Sewer Line and Pump Station. Estimated cost, \$6,000.00.
32. City of Edmonton, Final Certificate No. 641-49. Proposed Water Main Construction. Estimated cost, \$163,383.50.
33. Village of Fairview, Provisional Certificate No. 642-49. Proposed Sewerage Works. Estimated cost, \$43,950.00.
34. Town of Stavely, Provisional Certificate No. 643-49. Proposed Water Works Construction. Estimated cost, \$50,287.00.
35. Town of Okotoks, Provisional Certificate No. 644-49. Proposed Water Works System. Estimated cost, \$73,176.00.
36. Town of Okotoks, Provisional Certificate No. 645-49. Proposed Sewerage System. Estimated cost, \$58,771.00.
37. St. Mary's Hospital, Trochu, Alberta. Final Certificate No. 646-49. Proposed Extension. Estimated cost, \$167,000.00.
38. Village of Beaverlodge, Provisional Certificate No. 647-49. Proposed Waterworks System. Estimated cost, \$43,737.00.
39. Village of Beaverlodge, Provisional Certificate No. 648-49. Proposed Sewerage System. Estimated cost, \$33,240.00.
40. Town of Rocky Mountain House, Provisional Certificate No. 649-49. Proposed Sewerage System. Estimated cost, \$53,347.00.
41. Imperial Oil Limited (Townsite of Devon), Provisional Certificate No. 650-49. Proposed Water Supply to Leduc Gasoline Plant. Estimated cost, \$60,000.00.
42. Imperial Oil Limited (Townsite of Devon), Final Certificate No. 651-49. Proposed Water Supply to Leduc Gasoline Plant. Estimated cost, \$60,000.00.
43. Town of Stettler, Provisional Certificate No. 652-49. Proposed Sewerage Works. Estimated cost, \$33,812.00.
44. City of Calgary, Final Certificate No. 653-49. Proposed Construction of Sewers. Estimated cost, \$17,000.00.
45. City of Edmonton, Final Certificate No. 654-49. Proposed Water Mains Construction. Estimated cost, \$269,645.00.
46. City of Edmonton, Final Certificate No. 655-49. Proposed Storm Water Outlet.
47. City of Edmonton, Final Certificate No. 656-49. Proposed Sanitary and Storm Sewer Construction. Estimated cost, \$1,363,455.00.
48. City of Calgary, Certificate No. 657-49. Proposed Storm Sewer Construction. Estimated cost, \$2,000,000.00.
49. Bentley Hospital Board, Final Certificate No. 658-49. Proposed Extension. Estimated cost, \$51,000.00.
50. Village of Tilley, Provisional Certificate No. 659-49. Proposed Waterworks Construction. Estimated cost, \$19,000.00.
51. City of Calgary, Final Certificate No. 660-49. Proposed Sewer Construction. Estimated cost, \$20,300.00.
52. Town of Vegreville, Final Certificate No. 661-49. Proposed Water and Sewer Extensions. Estimated cost, \$10,860.00.
53. Town of Hanna, Final Certificate No. 662-49. Proposed Supply Line and Water Treatment Plant. Estimated cost, \$100,000.00.

The plumbing inspection work carried out by the Division continued to increase over previous years. The magnitude of the increase is indicated by the yearly revenues for inspection fees, which

were as follows for the years 1945, 1946, 1947, 1948 and 1949 respectively: \$2,008, \$2,928, \$5,237, \$6,732, and \$9,682. On this basis, the work carried out by the Division in 1949 was 4.82 as much as was done in 1945, which was considered a busy year by all previous standards. The amount of work inspected by the Division amounted to an investment of approximately 1¼ million dollars. The magnitude of this work has made it impossible for the two inspectors employed by the Division to keep up-to-date, and it is apparent that if the work is to be accomplished, another plumbing inspector will have to be employed. In order to get as much work done as possible, the Division received the co-operation of Public Works foremen in many towns by getting them to carry out inspection work on the smaller jobs. These arrangements have helped the situation considerably, but have not quite solved the problem.

A breakdown of the plumbing inspection work in the Province for 1949 is as follows on Tables 1 and 2:

TABLE 1

Inspections Made	New Construction Total No. Fixtures	Reconstruction and Extensions	Permits Granted	Charges Made
Provincial	6,798	399	1,608	\$ 9,682.00
Edmonton	15,531	2,152	2,990	14,613.75
Calgary	9,961	292	2,401	9,911.40
Lethbridge	2,855	670	534	1,292.25
Medicine Hat	1,350	167	226	552.00
Drumheller	52	.....	16	85.50
Red Deer	761	9	157	205.75
High River	163	19	49	98.00
Claresholm	97	.....	21	42.00
Hanna	61	.....	28	.....
Banff	226	89	43	116.75
Jasper (not reported) .....	.....	.....	.....	.....
Waterton	13	16	5	12.00
	<u>37,868</u>	<u>3,813</u>	<u>8,078</u>	<u>\$36,611.40</u>

TABLE 2

Location	W.C.	Lavatory Basin	Showers and Bath	Sinks	Laundry Tubs	Special Fixtures	Septic Tanks	Outside Toilets Eliminated
Provincial	935	857	1,635	633	31	133	335	271
Edmonton	695	1,069	389	428	52	340	304	362
Calgary	4,219	4,612	3,930	3,954	320	648	19	41
Lethbridge	2,181	2,087	1,958	2,004	6	75	1	1
Lethbridge	826	814	524	593	11	739	6	47
Medicine Hat	444	398	290	336	5	44	.....	40
Drumheller	18	17	7	9	.....	1	.....	2
Red Deer	212	205	150	169	13	21	3	14
High River	55	49	32	36	5	5	.....	24
Claresholm	30	26	14	16	8	3	2	4
Hanna	15	15	10	21	.....	.....	1	9
Banff	72	78	67	31	5	62	2	.....
Jasper (not reported) .....	.....	.....	.....	.....	.....	.....	.....	.....
Waterton	8	8	8	4	1	.....	5	3
Total	<u>9,710</u>	<u>10,235</u>	<u>9,014</u>	<u>8,234</u>	<u>456</u>	<u>2,071</u>	<u>678</u>	<u>818</u>

Hospital and Medical Services Division

M. G. McCALLUM, M.D., D.P.H., *Director*

The number of municipal hospitals increased during 1949 by the opening of a new hospital at Blairmore, and the construction of the hospital at Rimbey. Three Hills began active operation, and Katherine H. Prittie Hospital, Bonnyville and Miners' Union Hospital, Coleman, closed down.

The nursing situation during the year remained much the same as the previous year with a lack of approximately 200-300 nurses.

The Nursing Aide School in Calgary, as of December 31st, 1949, have certified 326 aides, an increase of 138 over December, 1948. There were 285 of these working in Alberta at the end of the year. Number of aides in training, 114. The lack of nurses to some extent is compensated for by this increase in nursing aides.

Approved Hospitals

The approved hospitals in the Province as at December 31st are divided as follows:

	1949	1948
Catholic	31	31
Protestant	5	6
Municipal	49	46
Municipally operated	6	7
Industrial	3	4
Service Group	2	2
Lay Corporation	2	2
Provincial	1	1
	<hr/> 99	<hr/> 99

The Isolation Hospitals in Edmonton and Calgary are not listed as separate from the city hospitals, and the hospital at Hythe is not listed as separate from Grande Prairie Municipal Hospital.

Private Hospitals

There was a further decrease in the number of private hospitals in 1949, there being 22 in operation at December 31st.

Statistics

The following tables are submitted giving the details of each approved hospital in the Province.

Table 1—Bed capacity, bed complement, patients under care during year, admissions, discharges, deaths, and still-births.

Table 2—Patient days, average stay in hospital, and occupancy.

Table 3—Staff.

Table 4—Operating expenditure.

Table 5—Operating revenue.

Table 6—Costs and earnings per patient day with percentage costs.

The information for hospitals in operation for only part of the year is given separately at the end of each table. Not included are the hospitals at Fort Smith, N.W.T., and Lloydminster, Saskatchewan.

For convenient reference, the information in the above tables is herewith presented in summary form, together with corresponding entries for 1948, for comparative purposes.

HOSPITAL BEDS

	1949		1948	
	Capacity	Complement	Capacity	Complement
Beds and Cribs	4,684	5,617	4,903	5,437
Bassinets	910	1,079	889	1,063
	<u>5,594</u>	<u>6,696</u>	<u>5,792</u>	<u>6,500</u>
Beds per thousand population (excluding Bassinets)	5.4	6.4	5.8	6.5
Patients accommodated per bed per year .....	....	28.6*	....	26.1
*Excluding newborn.				

PATIENT DAYS

	1949	1948
Adults and children	1,436,927	1,408,337
Newborn	210,431	201,935
All patients	<u>1,647,358</u>	<u>1,610,272</u>

PATIENTS UNDER CARE DURING THE YEAR

	1949	1948
Adults and children	159,033	147,656
Average stay	9.2	9.7
New born	23,653	22,572
Average stay	9.1	9.2
Total	182,686	170,228
Average stay	9.2	9.6
Average in hospital daily	4,513	4,417
% of population in hospital daily .....	.52	.52
% of population admitted per year	20.5	20.1

STAFF

	1949	1948
Administration:		
Executive	118	131
Clerical	328	307
Professional:		
Salaried doctors	37	21
Internes	78	89
Technicians	150	135
Nurses:		
Graduate	1,033	960
Student	980	904
Probation	269	284
Affiliates	36	41
Nurses Aides	74	*
Dietitians:		
Graduate	22	35
Student	12	13
Orderlies and ward helpers	648	561
Other employees	1,795	1,697
Total Staff	<u>5,580</u>	<u>5,168</u>

*Not available for 1948.

BIRTHS

	1949	1948
Births (excluding Indian) in approved hospitals	23,039	22,110
Total stillbirths	388	349
Percentage of births in approved hospitals to total births in Province (excluding Indian)	97.2	96.6

NURSES IN TRAINING

	1949	1948
Number of schools	10	10
Number graduated	340	315

FINANCIAL*

	1949	1948
Total operating revenue	\$12,247,500.96	\$10,585,077.46
Total operating cost	11,924,949.73	10,363,011.54
Revenue per patient day	8.14	6.56
Cost per patient day	7.29	6.42
Salaries and wages	48.0%	45.494%
Supplies	34.8%	36.88%
Purchased services	3.2%	3.50%
Insurance	0.9%	.97%
Depreciation	4.2%	3.80%
Repairs and replacements	3.9%	4.90%
Interest and exchange	1.9%	2.19%
Miscellaneous	3.1%	1.82%

*Excluding information for hospitals in operation for only part of the year.

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 1

Hospitals	Bed Capacity		Bed Complement		Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths			
	Number		Number		M.	F.	M.	F.	M.	F.	Total	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children		Newborn		
	Beds	Bassinets	Total	Beds															Bassinets	Total
Athabasca, Municipal	27	7	34	10	44	479	675	101	96	580	771	1,351	1,138	195	1,120	188	19	4		
Banff, Mineral Springs	42	4	46	4	79	440	468	26	35	466	503	969	837	60	849	57	11	1		
Barrhead, St. Joseph's	24	7	31	10	44	650	887	111	121	761	1,008	1,769	1,510	230	1,496	226	23	2		
Bassano, Municipal	26	6	32	6	33	298	446	25	39	323	485	808	740	63	717	62	11	1		
Beaverlodge, Municipal	9	6	15	6	18	175	351	63	64	238	415	653	519	126	506	121	13	2		
Bentley, Municipal	7	4	11	3	18	191	250	13	24	204	274	478	435	37	423	35	9	...		
Berwyn, Municipal	11	4	15	4	17	177	204	32	34	209	238	447	374	65	364	62	5	...		
Bonnyville, St. Louis	28	5	33	9	49	443	731	74	79	517	810	1,327	1,156	148	1,142	142	15	6		
Brooks, Municipal	31	7	38	10	47	437	714	118	112	555	826	1,381	1,124	227	1,128	224	11	4		
Cadomin, General	11	3	14	3	14	80	101	14	21	94	122	216	180	35	178	33	1	2		
Calgary, General	301	60	361	60	420	4,089	6,775	936	930	5,025	7,705	12,730	10,632	1,825	10,243	1,784	384	38		
(a) Isolation .....		...	...	...	...	173	172	...	...	173	172	345	335	...	314	...	5	...
Calgary, Holy Cross	270	40	310	48	317	3,497	6,085	963	918	4,460	7,003	11,463	9,384	1,844	9,223	1,810	162	38		
Calgary, Junior Red Cross	50	...	50	...	60	85	108	...	...	85	108	193	143	...	147	...	...	...
Calgary, Salvation Army Grace	25	28	53	28	53	...	412	194	191	194	603	797	407	380	402	374	1	2		
Camrose, St. Mary's	97	20	117	25	125	1,107	1,629	192	180	1,299	1,809	3,108	2,701	360	2,645	359	52	4		
Canmore, Canmore	12	4	16	4	18	181	164	16	20	197	184	381	342	36	336	36	3	...		
Cardston, Municipal	24	6	30	9	41	440	799	93	93	533	892	1,425	1,224	183	1,209	182	15	3		
Carmangay, Little Bow Municipal	20	4	24	2	22	107	133	8	9	115	142	257	235	17	231	17	6	...		
Castor, Our Lady of the Rosary	25	8	33	8	36	443	508	43	44	486	552	1,038	939	81	927	84	6	...		
Cereal, Municipal	9	3	12	5	18	110	135	19	17	129	152	281	241	35	227	35	11	1		
Clareholm, Municipal	25	4	29	10	51	385	630	68	49	453	679	1,132	998	115	971	110	22	3		
Cold Lake, John Neil	15	3	18	6	27	96	154	25	22	121	176	297	243	46	244	46	2	1		
Consort, Municipal	22	8	30	7	31	223	323	27	43	250	366	616	534	69	529	68	6	...		
Coronation, Municipal	18	3	21	6	28	226	253	34	38	260	291	551	468	70	456	67	9	3		
Daysland, Providence	16	...	16	6	30	204	280	24	24	228	304	532	479	47	465	45	9	1		
Desmarais, St. Martin's	14	2	16	1	16	52	107	5	1	57	108	165	159	6	153	6	1	...		
Didsbury, Municipal	25	7	32	10	37	279	497	53	56	332	553	885	757	106	741	102	19	3		
Drumheller, Municipal	65	7	72	13	93	1,074	1,307	194	192	1,268	1,499	2,767	2,339	377	2,288	366	39	12		
Eckville, Municipal	16	5	21	8	27	445	629	58	63	503	692	1,195	1,063	118	1,043	117	15	3		

Edmonton, Beulah Home	14	8	22	14	8	22	132	68	195	263	130	129	130	124	...	2	...
Edmonton, General	212	25	237	382	25	407	4,564	3,965	4,984	8,949	7,924	864	7,757	835	139	16	21
(a) T.B. Division .....	...	...	...	...	...	...	228	186	228	414	292	...	267	...	27	...	...
Edmonton, Misericordia	234	64	298	244	62	306	6,417	4,618	7,330	11,948	9,948	1,798	9,838	1,771	100	27	27
Edmonton, Royal Alexandra	460	80	540	492	80	572	9,233	7,194	10,576	17,770	14,656	2,754	14,389	2,701	241	45	36
(a) Isolation .....	...	...	...	...	...	...	286	304	286	590	578	...	555	...	8	...	...
(b) T.B. Division .....	...	...	...	...	...	...	47	50	47	97	68	...	58	...	10	...	...
Edmonton, University of Alberta	576	30	606	615	30	645	4,087	4,556	4,873	9,429	8,243	921	8,077	904	166	10	15
(a) D.V.A. ....	...	...	...	...	...	...	28	1,640	28	1,668	1,557	...	1,506	...	49	...	...
(b) Polio .....	...	...	...	...	...	...	13	7	13	20	17	...	20	...	...	...	...
(c) T.B. ....	...	...	...	...	...	...	48	...	48	48	26	...	25	...	3	...	...
Edson, St. John's	37	5	42	37	5	42	578	529	679	1,208	981	197	971	190	16	11	2
Elk Point, Municipal	26	6	32	16	3	19	907	661	978	1,639	1,468	151	1,440	144	23	3	1
Elnora, Municipal	16	6	22	22	6	28	167	118	197	315	254	51	248	49	4	2	1
Empress, Municipal	23	4	27	20	5	25	258	210	291	501	425	61	422	58	5	3	...
Fairview, Community	7	3	10	20	5	25	425	376	484	860	727	123	704	122	12	1	4
Ft. McMurray, St. Gabriel's	18	4	22	28	7	35	274	231	305	536	469	56	462	54	7	3	...
Ft. Vermilion, St. Theresa	9	4	13	30	4	34	261	173	289	462	413	46	386	42	4	2	...
Galahad, St. Joseph's	15	5	20	26	6	32	514	426	543	969	896	55	884	56	16	...	...
Grande Prairie, Municipal	40	10	50	54	19	73	1,126	926	1,274	2,200	1,856	306	1,823	306	40	5	2
Hythe, Sub. of Grande Prairie ..	...	...	...	...	...	...	126	117	148	265	225	35	226	35	2	2	2
Hanna, Municipal	35	9	44	40	9	49	463	353	536	889	726	146	716	150	23	...	3
Hardisty, St. Anne's	10	6	16	22	8	30	377	316	409	725	639	66	630	68	12	...	...
High Prairie, Providence	41	12	53	65	13	78	1,212	1,125	1,341	2,466	2,139	281	2,109	278	34	5	3
High River, Municipal	57	15	72	52	15	67	880	683	991	1,674	1,419	214	1,406	208	22	6	2
Innisfail, Municipal	36	6	42	39	8	47	480	406	548	954	790	139	772	137	25	2	3
Islay, Municipal	10	4	14	9	2	11	190	177	203	380	347	26	348	28	1	...	...
Jasper, Seton	15	4	19	15	...	15	171	236	190	426	373	41	375	39	3	...	...
Killam, General	27	6	33	30	8	38	325	386	592	978	856	113	839	110	12	2	3
Lacombe, Municipal	50	16	66	54	12	66	538	701	1,162	1,863	1,594	237	1,553	227	37	8	7
Lac la Biche, St. Catherine's	23	8	31	33	10	43	699	513	778	1,291	1,090	173	1,084	168	15	5	7
Lamont, Public	95	10	105	96	12	108	1,719	1,351	1,816	3,167	2,938	185	2,886	177	40	4	5
Lethbridge, Galt	86	8	94	107	17	124	2,289	1,689	2,527	4,216	3,592	519	3,509	512	83	10	10
Lethbridge, Isolation	16	...	16	16	...	16	50	44	50	94	92	...	84	...	...	...	...
Lethbridge, St. Michael's General ..	98	18	116	138	38	176	2,660	2,107	2,897	5,004	4,397	508	4,327	497	69	7	8
Macleod, Municipal	14	6	20	...	...	...	280	261	313	574	506	62	482	58	17	3	1
McLennan, Sacred Heart	29	4	33	35	8	43	762	600	847	1,447	1,250	181	1,227	178	13	3	5
Magrath, Municipal	8	...	8	18	4	22	203	158	228	386	328	48	321	52	7	...	1
Manning, Battle River	10	4	14	14	5	19	239	199	267	466	387	70	392	71	1	1	...
Mannville, Municipal	15	5	20	23	5	28	381	266	423	689	598	85	586	83	10	2	1
Mayerthorpe, Municipal	26	8	34	23	8	31	356	339	420	759	636	112	621	115	11	...	5

TABLE No. 1—Continued

Hospitals	Bed Capacity		Bed Complement		Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths			
	Number		Number		M.	F.	M.	F.	M.	F.	Total	Adults and Children	Newborn	Adults and Children	Newborn	Adults and Children		Newborn		
	Beds	Bassinets	Total	Beds															Bassinets	Total
Medicine Hat, General	118	10	128	153	35	188	1,900	2,780	368	362	2,268	3,142	5,410	4,597	713	4,502	701	106	17	10
Medicine Hat, Isolation	11	..	11	..	..	..	4	2	..	..	..	..	6	6	..	5	..	..	..	..
Mundare, General	26	4	30	27	4	31	359	526	29	29	388	555	943	871	58	855	86	11	..	..
Myrnam, Municipal	13	3	16	15	5	20	234	314	29	23	263	337	600	540	50	538	51	5	1	1
Nordegg, General	14	5	19	16	3	19	84	54	10	18	94	72	166	138	28	134	28	1	..	..
Olds, Municipal	31	9	40	32	10	42	232	467	92	88	324	555	879	682	176	662	175	23	1	5
Oyen, Municipal	17	5	22	19	5	24	200	252	21	26	221	278	499	449	45	434	45	6	..	1
Peace River, Municipal	14	4	18	26	6	32	276	414	70	45	346	459	805	671	112	661	105	9	5	3
Pincher Creek, St. Vincent's	25	6	31	29	9	38	477	588	65	62	542	650	1,192	1,045	121	1,028	120	15	3	2
Ponoka, Municipal	26	10	36	28	8	36	362	627	87	89	449	716	1,165	972	174	949	164	18	6	4
Provost, Municipal	13	5	18	24	7	31	288	385	41	43	329	428	757	665	82	646	80	15	1	2
Radway, St. Joseph's	14	6	20	20	6	26	310	437	73	82	383	519	902	737	150	734	149	9	2	1
Raymond, Municipal	18	5	23	18	7	25	166	296	48	54	214	350	564	456	99	449	98	6	2	..
Red Deer, Municipal	47	11	58	65	17	82	971	1,564	216	200	1,187	1,764	2,951	2,482	405	2,456	400	42	4	8
Rimbey, Municipal	19	8	27	22	8	30	365	506	60	54	425	560	985	859	113	855	108	3	..	..
Rocky Mountain House, Municipal ..	22	6	28	24	7	31	371	472	58	66	429	538	967	827	121	809	119	21	4	..
Smoky Lake, George McDougall ..	15	5	20	19	6	25	146	219	36	33	182	252	434	353	69	355	65	4	3	..
Spirit River, Holy Cross	27	4	31	32	6	38	357	430	36	32	393	462	855	772	67	755	65	13	3	4
Stettler, Municipal	24	6	30	38	10	48	729	1,114	120	115	849	1,229	2,078	1,809	233	1,743	226	50	5	2
St. Paul, St. Theresa	42	5	47	66	24	90	751	1,188	155	142	906	1,330	2,236	1,907	289	1,900	286	20	7	8
Taber, Municipal	27	4	31	35	8	43	494	794	140	106	634	900	1,534	1,267	242	1,235	229	28	9	1
Three Hills, Municipal	25	10	35	33	4	37	269	473	51	40	320	513	833	742	91	724	85	10	3	3
Tofield, Municipal	21	5	26	24	5	29	401	602	61	53	462	655	1,117	993	111	975	105	14	3	..
Trochu, St. Mary's	15	6	21	20	6	26	113	178	20	29	133	207	340	281	47	272	47	13	1	1
Turner Valley, Oilfields General...	13	6	19	20	8	28	323	306	35	45	358	351	709	612	76	612	77	7	1	3
Two Hills, Municipal	25	10	35	26	..	26	365	511	42	51	407	562	969	869	91	858	90	7	1	2
Vegreville, General	71	14	85	80	16	96	813	1,399	110	106	923	1,505	2,428	2,178	206	2,147	208	28	4	2
Vermilion, Municipal	44	6	50	42	10	52	409	624	95	75	504	699	1,203	1,020	164	995	162	19	4	7
Viking, Municipal	16	4	20	23	7	30	303	331	46	42	349	373	722	623	86	611	82	10	2	1
Vilna, Our Lady's	14	3	17	18	4	22	140	288	54	48	194	336	530	427	102	410	97	12	2	1

Vulcan, Municipal	15	8	23	21	6	27	352	462	67	58	419	520	939	800	123	788	116	14	4	3
Wainwright, Municipal	48	14	62	51	10	61	543	763	73	86	616	849	1,465	1,280	152	1,258	152	30	4	3
Westlock, Immaculata	30	10	40	44	9	53	816	1,188	147	147	963	1,335	2,298	1,977	290	1,938	276	30	5	4
Wetaskiwin, Community	46	12	58	47	15	62	866	1,328	218	170	1,084	1,498	2,582	2,156	379	2,091	367	71	12	4
Willingdon, General	13	3	16	25	4	29	301	435	28	31	329	466	795	727	59	712	56	7	1	3
Total	4,612	900	5,512	5,503	1,063	6,566	64,280	93,266	11,991	11,477	76,271	104,743	181,014	154,276	22,978	151,268	22,495	2,869	445	381
Less D.V.A., Orthopaedic, Polio, and T.B. Division Cases	372	...	372	...	...	....	1,968	472	....	....	1,968	472	2,440	2,103	....	2,023	....	89	....	....
	4,240	900	5,140	5,503	1,063	6,566	62,312	92,794	11,991	11,477	74,303	104,271	178,574	152,173	22,978	149,245	22,495	2,780	445	381

Hospitals in operation for only part of the year:

Blairmore, Crows Nest Pass, Municipal (9 mos.)	72	10	82	114	16	130	481	626	72	82	553	708	1,261	1,107	154	1,057	150	19	1	5
Bonnyville, Katherine H. Prittie (8 mos.) .....	...	...	...	...	...	....	104	141	16	15	120	156	276	237	30	244	30	1	1	2
Coleman, Miners' Union (4 mos.) ..	...	...	...	...	...	....	60	75	....	....	60	75	135	132	....	133	...	2	....	....

TABLE No. 2

Hospitals	TOTAL OF ALL PATIENT DAYS										Occu- pancy
	Total of all Patients, 1949			Total Patients Discharged or Died			Average Stay of Patients Dis- charged or Died				
	Adults and Children		Total	Adults and Children		Total	Adults and Children		Total		
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total		
Athabasca, Municipal	6,287	1,639	7,926	6,279	1,590	7,869	5.5	8.3	5.9	63.8	
Banff, Mineral Springs	24,169	488	24,657	26,816	460	27,276	32.3	8.0	30.4	157.6	
Barrhead, St. Joseph's	8,950	1,902	10,852	9,004	1,900	10,904	5.9	8.3	6.2	102.1	
Bassano, Municipal	4,648	407	5,055	3,849	408	4,257	5.3	6.5	5.4	48.9	
Beaverlodge, Municipal	2,915	674	3,589	2,971	664	3,635	5.7	5.4	5.7	88.7	
Bentley, Municipal	2,750	357	3,107	2,743	351	3,094	6.3	10.0	6.6	107.6	
Berwyn, Municipal	3,240	738	3,978	3,218	709	3,927	8.7	11.3	9.1	80.6	
Bonnyville, St. Louis	7,558	1,299	8,857	7,777	1,274	9,051	6.7	8.6	6.9	73.9	
Brooks, Municipal	7,560	1,465	9,025	6,865	1,476	8,341	6.0	6.5	6.1	66.8	
Cadomin, General	968	337	1,305	971	335	1,306	5.4	9.9	6.1	24.1	
Calgary, General	104,410	18,208	122,618	102,494	17,819	120,313	9.5	9.8	9.6	100.2	
(a) Isolation	5,765	.....	5,765	5,582	.....	5,582	17.5	.....	17.5	.....
Calgary, Holy Cross	88,343	15,795	104,138	88,518	15,893	104,411	9.4	8.6	9.3	89.6	
Calgary, Junior Red Cross	19,565	.....	19,565	22,736	.....	22,736	154.6	.....	154.6	107.1
Calgary, Salvation Army Grace	4,489	4,367	8,856	4,424	4,374	8,798	11.0	11.6	11.3	49.2	
Camrose, St. Mary's	17,053	3,495	20,548	16,869	3,459	20,328	6.3	9.5	6.6	48.1	
Canmore, Canmore	1,835	149	1,984	1,948	149	2,097	5.7	4.1	5.6	41.9	
Cardston, Municipal	6,707	1,475	8,182	6,657	1,481	8,138	5.4	8.0	5.8	76.5	
Carmangay, Little Bow Municipal	2,125	169	2,294	2,168	169	2,337	9.1	9.9	9.2	29.1	
Castor, Our Lady of the Rosary	5,433	789	6,222	5,442	788	6,230	5.8	9.2	6.1	59.5	
Cereal, Municipal	2,636	316	2,952	2,523	323	2,846	10.6	9.0	10.4	80.2	
Claresholm, Municipal	9,013	1,206	10,219	9,092	1,171	10,263	9.2	10.4	9.3	98.7	
Cold Lake, John Neil	1,774	407	2,181	1,819	407	2,226	7.4	8.7	7.6	32.4	
Consort, Municipal	5,670	676	6,346	5,609	666	6,275	10.5	9.8	10.3	70.6	
Coronation, Municipal	4,240	705	4,945	3,972	696	4,668	8.5	9.9	8.7	64.5	
Daysland, Providence	3,051	459	3,510	3,246	459	3,705	6.8	10.0	7.1	52.2	
Desmarais, St. Martin's	1,323	39	1,362	1,204	39	1,243	7.8	6.5	7.8	25.9	
Didsbury, Municipal	6,736	1,021	7,757	6,359	1,020	7,379	8.4	9.7	8.5	73.8	
Drumheller, Municipal	23,063	3,167	26,230	21,973	3,162	25,135	9.4	8.4	9.3	97.1	
Eckville, Municipal	5,749	984	6,733	5,818	1,018	6,836	5.5	8.5	5.8	98.4	
Edmonton, Beulah Home	1,946	2,451	4,397	1,944	2,400	4,344	14.9	19.0	16.9	38.0	
Edmonton, General	71,792	7,347	79,139	70,752	7,128	77,880	8.9	8.4	8.9	149.1	
(a) T.B. Division	43,699	.....	43,699	51,599	.....	51,599	175.5	.....	175.5	.....
Edmonton, Misericordia	74,993	15,471	90,464	75,166	15,518	90,684	7.6	8.6	7.7	87.7	
Edmonton, Royal Alexandra	133,048	24,659	157,707	134,165	24,589	158,754	9.2	9.0	9.1	89.2	
(a) Isolation	5,945	.....	5,945	5,736	.....	5,736	10.2	.....	10.2	.....
(b) T.B. Division	10,814	.....	10,814	6,795	.....	6,795	100.0	.....	100.0	.....

Edmonton, University of Alberta	117,553	9,064	126,617	117,303	8,986	126,289	14.2	9.8	13.8	83.4
(a) D.V.A.	48,003	.....	48,003	38,407	.....	38,407	22.1	.....	22.1	.....
(b) Folio	854	.....	854	1,219	.....	1,219	61.0	.....	61.0	.....
(c) T.B.	9,160	.....	9,160	7,688	.....	7,688	167.0	.....	167.0	.....
Edson, St. John's	7,578	2,115	9,693	7,698	2,143	9,841	7.8	10.7	8.3	56.1
Elk Point, Municipal	10,393	1,290	11,683	10,345	1,272	11,617	7.1	8.6	7.2	109.4
Elnora, Municipal	2,456	480	2,936	2,451	474	2,925	9.7	9.3	9.6	42.0
Empress, Municipal	4,894	737	5,631	4,874	737	5,611	11.4	12.1	11.5	58.2
Fairview, Community	4,204	962	5,166	4,088	993	5,081	5.7	8.1	6.0	164.4
Ft. McMurray, St. Gabriel's	4,394	391	4,785	4,375	397	4,772	9.3	7.0	9.1	66.8
Ft. Vermilion, St. Theresa	5,890	457	6,347	4,923	444	5,367	12.6	10.1	12.3	179.2
Galahad, St. Joseph's	4,765	531	5,296	4,738	549	5,287	5.3	9.8	5.5	87.0
Grande Prairie, Municipal	12,805	2,276	15,081	13,249	2,275	15,524	7.1	7.3	7.1	96.8
Hythe, Sub. of Grande Prairie	1,341	267	1,608	1,295	267	1,562	5.7	7.6	5.9	.....
Hanna, Municipal	6,149	1,507	7,656	6,254	1,518	7,772	8.5	10.1	8.7	48.1
Hardisty, St. Anne's	4,413	708	5,121	4,452	719	5,171	6.9	10.6	7.3	120.8
High Prairie, Providence	16,326	2,324	18,650	15,958	2,341	18,299	7.4	8.3	7.5	109.0
High River, Municipal	10,866	1,759	12,625	11,069	1,746	12,815	7.8	8.2	7.8	52.2
Innisfail, Municipal	8,270	1,312	9,582	8,999	1,317	10,316	11.3	9.5	11.0	62.9
Islay, Municipal	3,154	276	3,430	3,198	286	3,484	9.2	10.2	9.2	86.4
Jasper, Seton	3,232	412	3,644	3,224	384	3,608	8.5	9.8	8.7	59.0
Killam, General	5,991	1,116	7,107	5,921	1,110	7,031	6.9	9.9	7.3	60.7
Lacombe, Municipal	13,198	2,160	15,358	13,269	2,128	15,397	8.4	9.1	8.4	72.3
Lac la Biche, St. Catherine's	7,090	1,690	8,780	7,192	1,733	8,925	6.5	10.0	7.0	84.4
Lamont, Public	20,792	1,528	22,320	19,695	1,571	21,266	6.7	8.7	6.8	59.9
Lethbridge, Galt	35,193	4,844	40,037	35,941	4,840	40,781	10.0	9.3	9.9	112.0
Lethbridge, Isolation	1,276	.....	1,276	1,236	.....	1,236	14.7	.....	14.7	21.8
Lethbridge, St. Michael's General	38,455	4,678	43,133	38,896	4,707	43,603	8.8	9.3	8.9	107.4
Macleod, Municipal	4,233	574	4,807	4,254	571	4,825	8.5	9.4	8.6	82.8
McLennan, Sacred Heart	8,413	1,411	9,824	8,309	1,453	9,762	6.7	8.0	6.9	79.4
Magrath, Municipal	1,952	416	2,368	1,974	433	2,407	6.0	8.3	6.3	66.8
Manning, Battle River	2,347	602	2,949	2,369	609	2,978	6.0	8.5	6.4	64.2
Mannville, Municipal	4,192	899	5,091	4,136	902	5,038	6.9	10.6	7.4	76.5
Mayerthorpe, Municipal	4,263	1,146	5,409	4,122	1,161	5,283	6.5	10.1	7.2	44.9
Medicine Hat, General	38,320	6,859	45,179	38,704	6,887	45,591	8.4	9.6	8.6	88.9
Medicine Hat, Isolation	40	.....	40	20	.....	20	4.0	.....	4.0	1.0
Mundare, General	5,542	539	6,081	5,505	528	6,033	6.4	9.4	6.5	58.4
Myrnam, Municipal	3,122	427	3,549	3,156	437	3,593	5.8	8.4	6.0	65.8
Nordegg, General	782	177	959	722	176	898	5.3	6.3	5.5	15.3
Olds, Municipal	7,228	1,692	8,920	7,083	1,674	8,757	10.3	9.5	10.2	63.8
Oyen, Municipal	2,934	476	3,410	2,786	482	3,268	6.3	10.7	6.7	47.2
Peace River, Municipal	6,430	1,106	7,536	6,328	1,097	7,425	9.4	10.0	9.5	125.7
Pincher Creek, St. Vincent's	7,221	1,217	8,438	7,231	1,228	8,459	6.9	10.0	7.3	79.1
Ponoka, Municipal	6,767	1,387	8,154	6,883	1,366	8,249	7.1	8.0	7.3	71.2

TABLE No. 2—Continued

	PATIENT DAYS										Occu- pancy
	Total of all Patients, 1949			Total Patients Discharged and Died			Average Stay of Patients Dis- charged and Died				
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total		
Hospitals											
Provost, Municipal	4,581	571	5,152	4,448	569	5,017	6.7	7.0	6.8	96.5	
Radway, St. Joseph's	4,212	1,609	5,821	4,244	1,588	5,832	5.7	10.7	6.5	82.4	
Raymond, Municipal	2,820	749	3,569	2,951	754	3,705	6.5	7.5	6.7	42.9	
Red Deer, Municipal	17,900	3,867	21,767	18,125	3,770	21,895	7.2	9.6	7.5	104.3	
Rimbey, Municipal	5,668	1,173	6,841	5,665	1,119	6,784	6.6	10.4	7.0	81.7	
Rocky Mountain House, Municipal	6,035	1,279	7,314	6,133	1,325	7,458	7.4	10.8	7.8	75.1	
Smoky Lake, George McDougall	2,105	648	2,753	2,047	645	2,692	5.7	9.5	6.3	38.4	
Spirit River, Holy Cross	5,480	648	6,128	5,733	654	6,387	7.5	9.6	7.6	55.6	
Stettler, Municipal	14,890	1,847	16,737	14,904	1,836	16,740	8.3	8.0	8.3	169.9	
St. Paul, St. Theresa	13,034	2,911	15,945	13,251	2,919	16,170	6.9	10.0	5.0	85.0	
Taber, Municipal	9,252	1,919	11,171	9,133	1,906	11,039	7.2	8.0	7.4	93.8	
Three Hills, Municipal	4,072	805	4,877	4,040	790	4,830	5.5	9.0	5.9	44.6	
Tofield, Municipal	5,483	906	6,389	5,489	797	6,286	5.6	7.4	5.7	71.5	
Trochu, St. Mary's	2,549	482	3,031	2,651	484	3,135	9.3	10.1	9.4	46.5	
Turner Valley, Oilfields General	5,293	772	6,065	5,297	786	6,083	8.6	10.1	8.7	111.5	
Two Hills, Municipal	4,704	796	5,500	4,620	803	5,423	5.3	8.8	5.7	51.5	
Vegreville, General	15,514	1,890	17,404	15,468	1,949	17,417	7.1	9.2	7.3	59.8	
Vermilion, Municipal	8,347	1,756	10,103	7,658	1,772	9,430	7.6	10.6	8.0	51.9	
Viking, Municipal	4,558	826	5,384	4,576	818	5,394	7.4	9.7	7.7	78.0	
Vilna, Our Lady's	2,507	1,052	3,559	2,490	1,051	3,541	5.9	10.6	6.8	49.0	
Vulcan, Municipal	4,915	1,045	5,960	5,065	1,025	6,090	6.3	8.5	6.6	89.7	
Wainwright, Municipal	11,065	1,409	12,474	11,111	1,390	12,501	8.6	8.9	8.7	63.1	
Westlock, Immaculata	13,003	2,515	15,518	12,997	2,450	15,447	6.6	8.7	6.9	118.7	
Wetaskiwin, Community	11,482	2,627	14,109	11,622	2,673	14,295	5.4	7.1	5.6	68.3	
Willingdon, General	4,409	605	5,014	4,315	589	4,904	6.0	10.3	6.3	92.8	
Total	1,426,621	209,180	1,635,801	1,419,675	208,298	1,627,973	9.2	9.1	9.2	84.7	
Less D.V.A., Orthopaedic, Polio and T.B. Division cases	132,095		132,095	128,444		128,444					
	1,294,526	209,180	1,503,706	1,291,231	208,298	1,499,529	8.5	9.1	8.6	83.6	
Hospitals in operation for only part of the year:											
Blairmore, Crows Nest Pass Municipal (9 mos.)	7,853	970	8,823	7,491	961	8,452	7.0	6.4	6.9		
Bonnyville, Katharine H. Prittie (8 mos.)	1,497	281	1,778	1,804	277	2,081	7.4	8.9	7.5		
Coleman, Miners' Union (4 mos.)	956		956	1,049		1,049	7.8		7.8		

TABLE No. 3—STAFF

Hospital	STAFF															No. of Doctors	Medical Staff	Training School	Affiliation with other Institutions	Graduated during the year	
	Administ'n			Professional			Nurses			Dietitians			Others		Total						
	Executive	Clerical		Salaried Doctors	Internes	Technicians	Graduate	Student	Probationers	Affiliates	Nurses Aide	Dietitians		Ward Helpers							All other Employees
												Graduate	Student								
Athabasca, Municipal	2	1					4							5	6	18	Yes	2	No		
Banff, Mineral Springs	3	3					19							10	39	81	Yes	10	No		
Barrhead, St. Joseph's	1	2					4							11	8	26	No		No		
Bassano, Municipal		1					4							3	7	15	No		No		
Beaverlodge, Municipal	1						4							2	5	12	No		No		
Bentley, Municipal	3	1					4								3	11	No		No		
Berwyn, Municipal	1						1								7	9	No		No		
Blairmore, Crows Nest Pass Municipal	1	1			1		10				9			1	23	46	Yes	7	No		
Bonnyville, St. Louis							3							10	14	27	No		No		
Brooks, Municipal	1	1					8							8	6	24	No		No		
Cadomin, General	1						1			1					1	4	No		No		
Calgary, General	3	34	2	1	15		75	142	28	2				10	130	445	Yes	161	Yes	52	
Calgary, Holy Cross	4	29	2	2	7		50	188	35	1				17	109	446	Yes	137	Yes	54	
Calgary, Junior Red Cross	1	1	2		3		15							6	11	39	Yes	17	No		
Calgary, Salvation Army Grace ..	1	1					5				3				4	14	Yes	9	No		
Camrose, St. Mary's	1	4			4		23							16	17	65	Yes	8	No		
Canmore, Canmore	1	1	3				3								2	10	Yes	3	No		
Cardston, Municipal	1	1					8							1	7	18	No		No		
Carmangay, Little Bow Municipal ..			1				4								3	8	Yes	1	No		
Castor, Our Lady of the Rosary ..	1	1			2		5							4	6	19	Yes	2	No		
Cereal, Municipal		1					2							4	1	8	No		No		
Clareholm, Municipal		1		1			8				2			2	6	20	No		No		
Cold Lake, John Neil	1		1				3				1				6	12	No		No		
Consort, Municipal							4						4	5	5	13	Yes	1	No		
Coronation, Municipal	1						3						3	6	6	13	No		No		
Daysland, Providence	1	1			2		3						4	3	3	14	No		No		
Desmarais, St. Martin's							1						2			3	No		No		
Didsbury, Municipal	1	1					6						6	5		19	No		No		
Drumheller, Municipal	1	2			2		18				15		2	2	26	67	Yes	10	No		
Eckville, Municipal	1	1					3						4		5	14	No		No		

McLennan, Sacred Heart	1	1	1	1	1	6	42	17	8	10	25	No	...	No	...
Magrath, Municipal	1	1	1	1	1	3	...	...	...	...	...	...	2	3	10	No	...	No	...
Manning, Battle River	1	1	1	1	1	3	...	...	...	...	...	...	3	3	11	Yes	1	No	...
Manning, Municipal	1	1	1	1	1	3	...	...	...	...	...	...	3	2	10	No	...	No	...
Mayerthorpe, Municipal	1	1	1	1	1	5	...	...	...	...	...	...	5	6	19	No	...	No	...
Medicine Hat, General	4	6	...	...	2	26	42	17	...	...	1	...	29	53	180	Yes	14	Yes	17
Medicine Hat, Isolation	...	...	Not Reporting	...	...	...	...	...	...	...	Not Reporting	...	...	...	...	...	Not Reporting	...	...
Mundare, General	1	1	...	...	...	3	...	...	...	...	...	...	3	7	15	No	...	No	...
Myrnam, Municipal	1	1	...	...	...	2	...	...	...	...	...	...	4	4	12	Yes	3	No	...
Nordegg, General	...	1	1	...	...	3	...	...	...	...	...	...	3	1	9	Yes	1	No	...
Olds, Municipal	1	1	...	...	...	8	...	...	...	4	...	...	...	9	23	No	...	No	...
Oyen, Municipal	...	1	...	...	...	4	...	...	...	...	...	...	1	3	9	Yes	1	No	...
Peace River, Municipal	...	2	...	...	...	9	...	...	...	1	...	...	3	10	25	No	...	No	...
Pincher Creek, St. Vincent's	1	1	...	...	...	5	...	...	...	...	...	...	11	...	18	No	...	No	...
Ponoka, Municipal	1	...	...	...	1	8	...	...	...	3	...	...	...	11	24	Yes	7	No	...
Provost, Municipal	...	...	...	...	...	4	...	...	...	...	...	...	3	6	13	No	...	No	...
Radway, St. Joseph's	1	1	...	...	...	4	...	...	...	...	...	...	3	7	16	No	...	No	...
Raymond, Municipal	1	...	...	...	...	4	...	...	...	...	...	...	1	5	11	No	...	No	...
Red Deer, Municipal	2	3	...	...	1	22	...	...	...	...	...	...	11	21	60	Yes	16	No	...
Rimbey, Municipal	1	1	...	...	...	4	...	...	...	2	...	...	4	4	16	No	...	No	...
Rocky Mountain House, Municipal	1	1	...	...	...	4	...	...	...	3	...	...	...	7	19	Yes	3	No	...
Smoky Lake, George McDougall	...	1	...	...	...	3	...	...	...	...	...	...	2	6	12	Yes	1	No	...
Spirit River, Holy Cross	1	...	...	...	...	2	...	...	3	...	...	...	9	7	22	No	...	No	...
Stettler, Municipal	2	1	...	...	1	14	...	...	...	...	...	...	19	14	51	Yes	5	No	...
St. Paul, St. Theresa	3	2	...	...	1	5	...	...	...	11	...	...	...	16	38	No	...	No	...
Taber, Municipal	3	1	...	...	1	11	...	...	...	...	...	...	7	4	27	Yes	4	No	...
Three Hills, Municipal	1	...	...	...	...	3	...	...	...	3	...	...	2	6	15	No	...	No	...
Tofield, Municipal	...	...	...	...	...	5	...	...	...	...	...	...	3	5	13	No	...	No	...
Trochu, St. Mary's	1	1	...	...	...	1	...	...	...	4	...	...	1	5	13	No	...	No	...
Turner Valley, Oilfields General	...	1	...	...	...	5	...	...	...	...	...	...	5	4	15	No	...	No	...
Two Hills, Municipal	5	1	...	...	...	5	...	...	...	3	...	...	...	7	21	No	...	No	...
Vegreville, General	3	3	...	...	4	8	22	...	...	...	1	...	5	15	61	Yes	7	Yes	10
Vermilion, Municipal	1	1	...	...	...	7	...	...	...	...	...	...	7	5	21	No	...	No	...
Viking, Municipal	...	2	...	...	...	4	...	...	...	...	...	...	3	8	17	No	...	No	...
Vilna, Our Lady's	1	1	...	...	...	4	...	...	...	...	...	...	...	6	12	No	...	No	...
Vulcan, Municipal	1	1	...	...	...	5	...	...	...	...	...	...	3	5	15	No	...	No	...
Wainwright, Municipal	1	1	...	...	1	11	...	...	...	...	...	...	2	17	33	No	...	No	...
Westlock, Immaculata	1	3	...	...	...	9	...	...	...	...	...	...	7	15	35	No	...	No	...
Wetaskiwin, Community	1	1	...	...	...	9	...	...	...	2	...	...	2	11	26	Yes	5	No	...
Willingdon, General	1	1	...	...	...	4	...	...	...	...	...	...	2	5	13	No	...	No	...
Total	118	328	37	78	150	1033	980	269	36	74	22	12	648	1795	5580	...	...	...	340

- TABLE No. 4—OPERATING EXPENDITURES

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Deprecia- tion	Repairs and Replace- ments	Interest and Exchange	Miscel- laneous	Total Expenditure
Athabasca, Municipal	\$ 22,711.19	\$ 15,484.41	\$ 4,303.39	\$ 502.77	\$ 3,160.73	\$ 1,460.36	\$ 1.80	\$ 1,309.85	\$ 48,934.50
Banff, Mineral Springs	99,413.46	71,391.78	5,835.76	1,384.43	5,042.57	6,672.27	113.09	2,106.63	191,959.99
Barrhead, St. Joseph's	29,307.30	21,696.94	2,926.63	301.17	1,301.09	2,687.47	180.91	638.20	59,039.71
Basano, Municipal	14,779.69	11,426.41	3,587.75	220.69	2,218.74	1,489.91	161.71	236.86	34,121.76
Beaverlodge, Municipal	10,892.58	10,102.37	1,348.03	221.06	1,700.00	468.25	232.06	757.25	25,721.60
Bentley, Municipal	9,096.28	9,252.33	867.08	116.54	980.00	897.73	445.70	192.42	21,848.08
Berwyn, Municipal	9,565.63	6,519.71	1,328.74	218.61	2,000.00	321.86	.....	337.90	20,292.45
Bonnyville, St. Louis	19,593.75	13,638.79	1,529.05	.....	.....	260.00	.....	224.70	35,246.29
Brooks, Municipal	31,100.58	22,974.40	1,777.38	310.66	3,820.00	4,912.31	2,979.73	591.10	68,466.16
Cadomin, General		Not Reporting			Not Reporting			Not Reporting	
Calgary, General	519,273.63	334,448.28	18,825.42	6,584.27	.....	48,927.32	8,917.91	25,061.43	962,038.26
Calgary, Holy Cross	367,140.92	258,931.84	16,151.04	6,632.25	51,539.45	32,030.06	7,271.96	34,198.54	773,896.06
Calgary, Junior Red Cross	67,032.92	27,637.70	5,498.42	464.33	1,161.36	.....	.....	217.13	102,011.86
Calgary, Salvation Army Grace	19,769.15	15,455.95	790.75	163.78	676.03	944.37	.....	2,250.60	40,050.63
Camrose, St. Mary's	74,848.46	55,989.45	6,786.49	1,472.71	7,679.18	1,460.51	8,860.45	845.60	157,942.85
Canmore, Canmore	8,932.59	10,574.60	1,651.71	.....	189.19	541.78	71.47	1,054.28	23,015.62
Cardston, Municipal	26,578.91	25,292.06	2,741.32	377.43	2,508.98	5,276.92	167.62	754.04	63,697.28
Carmangay, Little Bow Municipal	9,702.10	7,055.52	1,223.61	152.00	.....	2,307.67	.....	271.80	20,712.70
Castor, Our Lady of the Rosary	11,740.00	16,656.77	1,334.36	545.98	.....	9,938.05	.....	205.85	40,421.01
Cereal, Municipal	10,245.38	9,919.31	1,149.84	102.66	1,911.39	512.85	10.67	25.00	23,877.10
Claresholm, Municipal	30,419.18	19,760.08	1,899.36	346.78	2,845.04	1,479.75	1,265.98	67,653.41	125,669.58
Cold Lake, John Neil	8,479.23	4,546.01	476.84	.....	446.26	1,298.42	.....	278.92	15,525.68
Consort, Municipal	15,899.70	14,317.69	1,649.10	70.78	7,100.00	1,473.64	4,035.98	281.55	44,828.44
Coronation, Municipal	14,682.41	11,775.08	1,920.79	163.66	1,580.68	3,130.00	205.75	518.80	33,977.17
Daysland, Providence	6,858.80	10,561.71	1,242.02	477.53	3,278.49	1,098.62	4.11	167.96	23,689.24
Desmarais, St. Martin's	3,540.00	6,735.50	657.50	135.00	360.00	210.00	.....	230.00	11,868.00
Didsbury, Municipal	23,673.05	19,775.80	2,045.80	326.10	6,511.85	4,810.47	3,840.37	515.80	61,499.24
Drumheller, Municipal	94,815.74	70,032.34	8,977.51	1,394.56	5,712.75	6,639.61	77.70	2,157.49	189,807.70
Eckville, Municipal	15,419.97	14,152.74	2,351.60	394.80	4,292.62	1,097.78	2,316.41	439.00	40,464.92
Edmonton, Beulah Home	10,841.20	11,366.68	575.52	163.50	.....	5,324.62	96.20	972.94	29,340.66
Edmonton, General	429,857.15	272,182.26	12,623.94	10,174.36	66,959.22	13,878.94	3,686.64	6,826.85	816,189.36
Edmonton, Misericordia	258,064.69	241,117.95	16,053.24	4,693.24	46,956.70	24,518.58	18,614.18	29,380.84	639,399.42
Edmonton, Royal Alexandra	792,230.04	481,064.29	28,335.57	40,150.95	20,836.01	39,003.52	30,508.23	58,173.82	1,490,302.43
Edmonton, University of Alberta	881,913.08	543,661.82	43,826.07	4,900.78	.....	79,654.33	26,164.21	20,488.46	1,600,608.75
Edson, St. John's	23,449.91	17,654.57	1,890.91	368.95	4,268.12	3,073.64	50.39	501.78	51,258.27

Elk Point, Municipal	21,118.98	21,488.94	2,505.54	266.68	.....	8,049.77	94.65	100.00	53,624.56
Elnora, Municipal	10,466.50	6,085.53	1,098.59	160.00	.....	130.34	6,676.02	2,784.60	27,401.58
Empress, Municipal	13,856.86	14,666.39	834.36	10.00	1,909.03	.....	.....	31.00	31,307.64
Fairview, Community	12,521.73	11,470.40	2,168.81	227.50	2,185.00	994.01	.....	69.00	29,636.45
Ft. McMurray, St. Gabriel's	18,300.20	14,798.06	2,669.32	379.90	2,856.00	2,723.05	3,064.18	720.50	45,511.21
Fort Vermilion. St. Theresa	5,811.50	14,012.30	1,975.29	785.00	2,144.71	.....	336.68	29.23	25,094.71
Galahad, St. Joseph's	14,408.64	9,040.76	911.59	150.00	1,162.00	925.43	1,127.61	306.77	28,032.80
Grande Prairie, Municipal	38,511.79	29,630.91	4,105.28	457.23	7,217.42	3,931.31	12.43	12,477.29	96,343.66
Hanna, Municipal	35,067.11	21,240.13	2,675.36	493.39	3,333.04	3,650.70	375.82	1,348.69	68,184.24
Hardisty, St. Anne's	16,370.21	10,271.85	995.13	328.00	654.25	238.00	26.67	250.26	29,134.37
High Prairie, Providence	40,896.32	34,343.46	3,040.97	596.35	3,011.35	6,191.46	1,571.00	1,352.63	91,003.54
High River, Municipal	41,912.20	27,544.48	4,520.81	548.88	4,418.25	2,006.80	367.50	.....	81,318.92
Innisfail, Municipal	27,849.32	19,803.96	2,906.92	377.56	3,615.25	1,893.36	115.69	.....	56,562.06
Islay, Municipal	9,885.32	6,407.97	1,111.17	195.92	896.75	727.19	10.00	2,483.31	21,717.63
Jasper, Seton	11,704.45	10,986.75	959.43	50.00	.....	409.50	2,540.00	104.70	26,754.83
Killam, General	20,203.07	16,631.44	1,186.37	114.00	3,086.16	1,597.20	1,558.88	349.65	44,726.77
Lacombe, Municipal	51,409.12	38,676.86	4,379.69	1,219.94	11,096.16	289.45	5,187.36	303.00	112,561.58
Lac la Biche, St. Catherine's	28,271.24	10,750.45	1,172.32	114.00	2,372.11	3,791.86	1.75	606.15	47,079.88
Lamont, Public	63,975.60	63,177.85	7,933.21	.....	10,936.46	4,032.07	101.68	4,146.45	154,303.32
Lethbridge, Galt	100,642.94	126,713.81	11,628.34	698.57	1,575.24	8,526.34	239.76	2,371.87	252,396.87
Lethbridge, Isolation	3,412.24	1,184.62	432.45	10.35	.....	318.35	.....	131.41	5,489.42
Lethbridge, St. Michael's General	155,163.17	125,861.44	6,946.50	1,143.74	11,478.09	5,652.53	8,984.15	915.78	316,145.40
Macleod, Municipal	21,916.04	18,765.01	4,467.44	718.04	2,967.58	2,961.47	874.16	343.00	53,012.74
McLennan, Sacred Heart	26,912.50	24,274.70	2,807.67	213.03	2,365.78	4,238.53	314.80	2,232.94	63,359.95
Magrath, Municipal	12,928.88	7,336.52	1,151.15	113.32	1,007.93	162.18	121.36	1,108.10	23,929.44
Manning, Battle River	9,473.25	9,457.08	1,443.61	65.00	.....	6,348.48	.....	439.10	27,226.52
Mannville, Municipal	12,351.80	11,789.89	2,110.53	149.20	1,486.31	291.87	29.18	1,891.00	30,099.78
Mayerthorpe, Municipal	17,741.30	15,355.40	3,092.41	747.43	6,898.83	2,620.96	4,776.59	137.48	51,370.40
Medicine Hat, General	148,831.28	152,251.15	11,350.59	1,558.86	5,100.88	5,438.93	1,095.19	3,014.33	328,641.21
Medicine Hat, Isolation .....	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....
Mundare, General	10,285.78	11,458.66	822.25	74.10	1,863.05	1,313.40	133.51	4,368.95	30,319.70
Myrnam, Municipal	19,389.45	14,409.33	2,463.73	342.75	2,312.11	2,997.53	6.06	163.70	42,084.66
Nordegg, General	25,302.41	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....
Olds, Municipal	10,020.74	21,829.63	2,940.28	652.39	9,546.97	1,409.13	4,316.66	24,408.62	90,406.09
Oyen, Municipal .....	.....	9,454.32	2,454.82	169.44	1,772.09	1,689.33	856.32	.....	26,417.06
Peace River, Municipal	25,407.41	24,364.74	4,226.68	317.94	1,266.59	1,520.51	3,057.92	.....	60,161.79
Pincher Creek, St. Vincent's	15,844.93	14,242.25	2,384.40	306.55	3,269.00	4,701.49	1,006.00	.....	41,754.62
Ponoka, Municipal	26,874.70	15,911.21	2,503.31	800.52	8,849.40	3,087.74	4,267.08	177.00	62,470.96
Provost, Municipal	19,023.60	16,756.93	1,590.64	243.50	2,191.38	5,418.11	.....	25.00	45,249.16
Radway, St. Joseph's	13,046.00	11,739.82	1,517.42	263.68	1,096.06	373.94	13.56	355.81	28,406.29
Raymond, Municipal	12,250.13	9,417.12	1,370.74	150.74	1,601.85	276.07	1,722.93	158.11	26,947.69
Red Deer, Municipal	77,091.90	47,676.32	9,637.34	873.12	6,438.04	1,681.26	2,035.34	829.70	146,263.02
Rimbey, Municipal	19,673.59	18,558.42	3,821.07	687.05	8,020.62	1,146.02	5,875.62	257.20	58,039.59
Rocky Mountain House, Municipal	18,385.09	14,524.03	2,158.08	394.56	1,515.30	1,816.55	1,130.99	41.20	39,965.80
Smoky Lake, George McDougall	11,664.17	7,206.12	1,745.02	88.48	3,258.40	949.00	107.50	334.29	25,352.98

TABLE No. 4—OPERATING EXPENDITURES—Continued

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Deprecia- tion	Repairs and Replace- ments	Interest and Exchange	Miscel- laneous	Total Expenditure
Spirit River, Holy Cross	22,692.00	15,117.96	1,243.52	368.91	1,000.00	3,126.01	1,621.81	4,935.45	50,105.66
Stettler, Municipal	48,925.21	50,288.11	3,060.89	583.67	6,061.83	2,574.35	5,890.93	1,107.65	118,492.64
St. Paul, St. Theresa	35,267.00	29,668.10	2,351.26	436.02	4,918.72	5,679.67	1,610.05	588.96	80,519.78
Taber, Municipal	29,597.61	20,082.91	2,616.45	624.50	2,863.34	2,590.48	2,572.38	.....	60,947.67
Three Hills, Municipal	22,552.23	15,208.82	4,151.51	591.80	9,644.13	1,852.80	4,928.21	22,232.26	81,161.76
Tofield, Municipal	17,035.23	16,007.05	1,771.06	335.40	7,538.05	1,255.29	4,635.86	.....	48,577.94
Trochu, St. Mary's	17,665.95	7,726.06	1,047.42	93.80	5,027.71	364.96	1.68	146.31	32,073.89
Turner Valley, Oilfields General .....	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....
Two Hills, Municipal	20,491.80	16,783.72	2,162.21	625.44	6,726.03	963.52	5,153.85	1,582.82	54,489.39
Vegreville, General	40,320.30	41,302.30	7,168.55	1,187.49	10,106.03	5,818.57	.....	473.90	106,377.14
Vermilion, Municipal	22,967.04	15,916.61	4,449.71	.....	4,026.51	1,626.70	297.21	68.10	49,351.88
Viking, Municipal	15,714.94	13,220.57	1,692.09	325.68	805.47	460.33	47.89	804.57	33,071.54
Vilna, Our Lady's	12,632.23	7,306.90	240.15	301.60	1,432.72	2,048.71	18.00	610.36	24,590.67
Vulcan, Municipal	18,217.50	13,523.44	2,453.07	243.95	2,639.39	1,425.40	2,932.63	.....	41,435.38
Wainwright, Municipal	38,945.33	29,080.81	3,198.07	890.88	16,004.83	1,604.62	8,287.96	568.04	98,580.54
Westlock, Immaculata	48,171.33	25,115.84	3,501.78	1,332.90	2,247.12	20,061.94	3,878.97	656.10	104,965.98
Wetaskiwin, Community	34,423.32	26,291.30	4,067.55	620.24	6,774.41	3,431.79	64.82	489.46	76,162.89
Willingdon, General	13,538.10	10,045.77	728.18	135.00	1,804.08	337.52	4.71	3,917.96	30,511.32
Total.....	\$5,727,199.25	\$4,147,406.42	\$ 382,302.64	\$ 109,486.32	\$ 493,432.26	\$ 469,545.49	\$ 226,360.79	\$ 369,216.56	\$11,924,949.73
Hospitals in operation for only part of the year:									
Blairmore, Crows Nest Pass Municipal (9 mos.)	\$ 48,052.36	\$ 27,763.37	\$ 2,460.44	.....	\$ 23,578.06	.....	\$ 10,460.00	.....	\$ 112,314.23
Bonnyville, K.H.P. (8 mos.)	8,887.69	6,353.20	359.56	.....	2,709.10	729.62	.....	\$ 1,212.26	20,251.43
Coleman, Miners' Union (4 mos.) .....	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....

TABLE No. 5—OPERATING REVENUE

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Other Revenue	Total Revenue
Athabasca, Municipal	\$ 30,243.30	\$ 13,889.97	\$ 44,133.27	\$ 24,203.12	\$ 19,930.15	\$ 29,856.62	\$ 35,925.84	\$ 198.41	\$ 49,985.18
Banff, Mineral Springs	131,178.65	26,854.91	158,033.56	18,409.20	139,624.36	11,072.60		132.27	186,755.07
Barrhead, St. Joseph's	39,842.55	16,320.91	56,163.46	3,923.51	52,239.95	7,618.10		66.85	59,924.90
Bassano, Municipal	21,001.90	5,665.95	26,667.85	14,815.47	11,852.38	14,424.48	767.56	3,594.57	30,638.99
Beaverlodge, Municipal	8,804.25	4,159.52	12,963.77		12,963.77	13,970.30	2,083.35	681.99	29,699.41
Bentley, Municipal	4,839.52	5,638.18	10,477.70		10,477.70	10,722.95		1,263.33	22,463.98
Berwyn, Municipal	17,306.45	2,157.95	19,464.40	9,559.10	9,905.30	18,364.40			28,269.70
Bonnyville, St. Louis	36,038.65	5,478.45	41,517.10	16,430.91	25,086.19	5,835.20	1,215.90	788.59	32,925.88
Brooks, Municipal	36,821.00	13,990.17	50,811.17	20,751.55	30,059.62	39,950.20	703.55		70,713.37
Cadomin, General		Not Reporting			Not Reporting			Not Reporting	
Calgary, General	610,248.85	262,464.50	872,713.35	285,240.02	587,473.33	313,212.31	9,656.00		910,341.64
Calgary, Holy Cross	528,282.08	282,050.91	810,332.99	118,774.26	691,558.73	72,645.20	8,893.02	14,919.75	788,016.70
Calgary, Junior Red Cross						27,279.16		74,732.70	102,011.86
Calgary, Salvation Army Grace	19,447.65	3,076.80	22,524.45	4,199.83	18,324.62	17,929.49		4,000.00	40,254.11
Camrose, St. Mary's	88,854.70	56,252.10	145,106.80	17,934.42	127,172.38	14,107.80		1,609.50	142,889.68
Canmore, Canmore	692.50	38,031.71	38,724.21		38,724.21	2,182.75			40,906.96
Cardston, Municipal	30,285.00	8,889.08	39,174.08	19,584.18	19,589.90	40,555.43	3,133.63	1,035.62	64,314.58
Carmangay, Little Bow Municipal	9,288.30	2,330.38	11,618.68	5,500.40	6,118.28	11,155.50		532.91	17,806.69
Castor, Our Lady of the Rosary	23,033.55	6,328.25	29,361.80	4,390.74	24,971.06	3,847.50		6,200.00	35,018.56
Cereal, Municipal	11,955.45	2,109.35	14,064.80	5,654.15	8,410.65	14,635.40	696.06	100.50	23,842.61
Claresholm, Municipal	41,324.90	6,108.45	47,433.35	24,062.75	23,370.60	7,233.20	2,607.50	93,227.04	126,438.34
Cold Lake, John Neil	7,490.45	1,040.71	8,531.16	1,714.01	6,817.15	840.90		386.00	8,014.05
Consort, Municipal		Not Available			15,373.60	26,141.50	922.75	1,719.72	44,157.57
Coronation, Municipal	19,572.75	3,536.99	23,109.74	10,874.35	12,235.39	23,619.20	117.00	1,200.00	37,171.59
Daysland, Providence	15,207.10	5,245.80	20,452.90	3,244.50	17,208.40	2,461.90		1,913.18	21,583.48
Desmarais, St. Martin's	5,908.00	30.00	5,938.00	3,306.85	2,631.15	2,351.15	894.00	2,940.00	8,816.30
Didsbury, Municipal	33,369.75	9,109.14	42,478.89	18,217.30	24,261.59	33,734.90	943.51	1,187.38	60,127.38
Drumheller, Municipal	113,006.90	46,105.13	159,112.03	58,812.82	100,299.21	90,273.80		623.08	191,196.09
Eckville, Municipal	26,997.00	7,094.67	34,091.67	15,766.70	18,324.97	30,086.76	3,163.49	1,224.60	52,799.82
Edmonton, Beulah Home		Not Available			9,097.83	9,932.35		10,239.85	29,270.03
Edmonton, General	638,977.25	228,225.46	867,202.71	114,769.21	752,433.50	60,739.70		5,003.32	818,176.52
Edmonton, Misericordia	437,828.23	221,678.04	659,506.27	85,932.62	573,573.65	84,206.10	7,127.40	48,642.18	713,549.33
Edmonton, Royal Alexandra	971,526.50	446,302.95	1,417,829.45	242,128.47	1,175,700.98	271,180.67	25,394.18	18,026.60	1,490,302.43
Edmonton, University of Alberta	1,119,961.15	449,971.20	1,569,932.35	206,295.48	1,363,636.87	203,043.28	102,945.30		1,669,625.45
Edson, St. John's	36,349.45	12,485.86	48,835.31	6,233.11	42,602.20	6,406.40	2,655.06		51,663.66

DEPARTMENT OF PUBLIC HEALTH

TABLE No 5—OPERATING REVENUE—Continued

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Other Revenue	Total Revenue
Elk Point, Municipal	46,833.50	7,126.50	53,960.00	28,216.94	25,743.06	27,964.49	.....	1,762.88	55,470.43
Elnora, Municipal	10,664.25	1,710.59	12,374.84	4,740.14	7,634.70	2,766.80	210.05	17,223.26	27,834.81
Empress, Municipal	25,049.34	10,827.92	35,877.26	6,907.08	28,970.18	5,437.00	.....	1,026.71	35,433.89
Fairview, Community	18,025.56	6,983.95	25,009.51	6,828.85	18,180.66	12,334.00	1,423.50	30.00	31,968.16
Ft. McMurray, St. Gabriel's	12,116.15	2,657.20	14,773.35	2,423.09	12,350.26	12,809.14	.....	4,507.24	29,666.64
Fort Vermilion, St. Theresa	20,558.00	3,428.95	23,986.95	6,966.75	17,020.20	1,694.05	.....	7,186.00	25,900.25
Galahad, St. Joseph's	19,433.35	7,486.31	26,919.66	4,080.80	22,838.86	3,661.70	.....	139.60	26,640.16
Grande Prairie, Municipal	60,475.48	23,202.97	83,678.45	37,719.74	45,958.71	52,712.15	.....	21,174.72	119,845.58
Hanna, Municipal	31,532.15	10,923.83	42,455.98	16,527.83	25,928.15	36,768.56	.....	1,552.17	64,248.88
Hardisty, St. Anne's	20,497.06	5,170.65	25,667.71	6,692.42	18,975.29	3,100.30	797.60	1,350.00	24,223.19
High Prairie, Providence	84,579.40	28,790.60	113,370.00	48,376.41	64,993.59	18,782.29	2,252.80	500.00	86,528.68
High River, Municipal	51,600.15	13,429.83	65,029.98	31,785.23	33,244.75	44,288.40	.....	4,827.00	82,360.15
Innisfail, Municipal	7,982.75	4,304.87	12,287.62	848.06	11,439.56	37,967.20	.....	249.32	49,656.08
Islay, Municipal	12,959.19	2,773.10	15,732.29	12,410.50	3,321.79	18,457.40	302.00	375.70	22,456.89
Jasper, Seton	15,210.77	3,890.65	19,101.42	2,620.43	16,480.99	4,261.20	1,963.80	7,010.58	29,716.57
Killam, General	27,247.79	12,751.56	39,999.35	5,300.11	34,699.24	5,083.90	.....	1,046.24	40,829.38
Lacombe, Municipal	61,859.77	14,536.21	76,395.98	32,733.95	43,662.03	59,062.00	1,000.44	69,664.70	173,389.17
Lac la Biche, St. Catherine's	28,132.40	9,502.27	37,634.67	2,317.11	35,317.56	5,614.72	1,014.50	.....	41,946.78
Lamont, Public	106,905.50	37,311.14	144,216.64	6,857.32	137,359.32	12,379.30	.....	12,196.45	161,935.07
Lethbridge, Galt	168,585.71	73,140.29	241,726.00	26,578.77	215,147.23	37,733.77	.....	2,635.37	255,516.37
Lethbridge, Isolation	.....	.....	.....	.....	3,445.60	894.60	.....	.....	4,340.20
Lethbridge, St. Michael's General	212,804.85	142,941.95	355,746.80	61,217.00	294,529.80	28,979.30	.....	3,148.75	326,657.85
Macleod, Municipal	37,285.50	4,597.83	41,883.33	10,221.20	31,662.13	26,486.48	.....	1,484.76	59,633.37
McLennan, Sacred Heart	41,212.50	8,672.31	49,884.81	15,076.79	34,808.02	6,866.30	526.16	19,523.82	61,724.30
Magrath, Municipal	6,794.96	2,411.65	9,206.61	4,081.35	5,125.26	20,786.40	691.72	.....	26,603.38
Manning, Battle River	10,001.77	4,607.77	14,609.54	1,284.20	13,325.34	8,569.95	968.92	4,000.00	26,864.21
Mannville, Municipal	19,491.03	2,552.38	22,043.41	10,259.82	11,783.59	19,844.92	565.57	2,703.83	34,897.91
Mayerthorpe, Municipal	33,990.00	4,207.88	38,197.88	22,125.33	16,072.55	33,316.85	493.75	236.22	50,119.37
Medicine Hat, General	213,235.05	73,098.91	286,333.96	10,807.38	275,526.58	59,805.40	.....	890.30	336,222.28
Medicine Hat, Isolation	.....	Not Reporting	.....	.....	Not Reporting	.....	Not Reporting	.....	.....
Mundare, General	23,046.65	4,311.24	27,357.89	5,198.07	22,159.82	3,891.30	675.00	8,386.67	35,112.79
Myrnam, Municipal	14,220.00	5,643.91	19,863.91	8,188.60	11,675.31	30,641.30	.....	1,256.04	43,572.65
Nordegg, General	.....	Not Reporting	.....	.....	Not Reporting	.....	Not Reporting	.....	.....
Olds, Municipal	37,770.60	8,531.68	46,302.28	17,070.78	29,231.50	24,006.70	1,013.87	24,736.26	78,988.33
Oyen, Municipal	12,856.45	2,251.35	15,107.80	6,948.22	8,159.58	19,591.15	.....	804.00	28,554.73

Peace River, Municipal	36,377.55	12,574.56	48,952.11	25,024.29	23,927.82	26,666.35	.....	2,018.28	52,612.45
Pincher Creek, St. Vincent's	34,289.22	9,359.06	43,648.28	5,282.69	38,365.59	12,642.30	.....	.....	51,007.89
Ponoka, Municipal	32,425.15	10,067.02	42,492.17	19,010.55	23,481.62	42,009.80	1,379.55	1,622.00	68,492.97
Provost, Municipal	23,630.00	10,590.48	34,220.48	14,329.35	19,891.13	23,883.30	.....	.....	43,774.43
Radway, St. Joseph's	20,933.50	7,419.98	23,353.48	4,096.67	24,256.81	4,096.40	2,694.62	1,824.25	32,872.08
Raymond, Municipal	13,091.00	5,255.55	18,346.55	10,968.15	7,378.40	23,411.09	238.10	215.56	31,243.15
Red Deer, Municipal	99,895.00	28,765.92	128,660.92	39,158.60	89,502.32	21,535.05	1,485.84	32,314.52	144,837.73
Rimbey, Municipal	24,520.80	7,138.00	31,658.80	13,326.23	18,332.57	28,726.80	1,107.45	20,513.38	68,680.20
Rocky Mountain House, Municipal	30,597.25	6,494.48	37,091.73	15,787.65	21,304.08	25,432.00	111.50	1,908.32	48,755.90
Smoky Lake, George McDougall	9,283.00	4,521.67	13,804.67	1,527.20	12,277.47	1,771.70	.....	127.02	14,176.19
Spirit River, Holy Cross	24,643.80	7,694.05	32,337.85	4,821.16	27,516.69	4,166.40	.....	15,388.00	47,071.09
Stettler, Municipal	69,751.85	23,652.58	93,404.43	53,278.57	40,125.86	79,057.74	1,615.90	53,261.41	174,060.91
St. Paul, St. Theresa	59,624.03	8,681.22	68,305.25	6,201.60	62,103.65	16,804.05	.....	.....	78,907.70
Taber, Municipal	42,558.50	13,973.61	56,532.11	17,125.31	39,406.80	36,337.35	.....	683.83	76,427.98
Three Hills, Municipal	20,458.85	8,606.09	29,064.94	8,737.17	20,327.77	35,242.63	4,427.34	21,994.66	81,992.40
Tofield, Municipal	26,577.75	10,575.31	37,153.06	10,287.12	26,865.94	24,677.72	.....	.....	51,543.66
Trochu, St. Mary's	13,461.50	3,032.33	16,493.83	1,416.51	15,077.32	2,158.80	957.01	12,369.59	30,562.72
Turner Valley, Oilfields General .....	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....
Two Hills, Municipal	22,138.65	6,952.15	29,090.80	12,460.30	16,630.50	42,955.45	1,615.80	153.00	61,354.75
Vegreville, General	78,466.45	28,639.33	107,105.78	25,276.29	81,829.49	22,105.20	1,040.00	.....	104,974.69
Vermilion, Municipal	39,016.75	7,971.75	46,988.50	24,313.05	22,675.45	26,528.80	.....	1,718.58	50,922.83
Viking, Municipal	20,694.58	5,405.19	26,099.77	15,668.07	10,431.70	19,817.80	595.42	865.48	31,710.40
Vilna, Our Lady's	10,914.75	3,624.55	14,539.30	2,110.39	12,428.91	2,524.20	908.55	1,415.81	17,277.47
Vulcan, Municipal	26,044.66	8,979.00	35,023.66	20,158.45	14,865.21	29,973.60	.....	9,807.57	54,646.38
Wainwright, Municipal	54,670.30	21,116.68	75,786.98	26,411.11	49,375.87	58,104.20	3,980.84	6,182.02	117,642.93
Westlock, Immaculata	59,413.15	16,150.64	74,563.79	7,566.17	67,997.62	11,644.30	1,404.83	20,414.96	101,461.71
Wetaskiwin, Community	58,914.65	19,968.98	78,883.63	12,842.51	66,041.12	8,762.60	94.25	32.22	74,930.19
Willingdon, General	20,631.15	5,071.57	25,702.72	3,084.35	22,618.37	3,516.10	258.28	10,607.00	36,999.75
Total	\$7,581,665.25	\$3,038,683.49	\$10,620,348.74	\$2,224,408.81	\$8,423,856.96	\$2,842,727.95	\$ 247,660.06	\$ 733,255.99	\$12,247,500.96
Hospitals in operation for only part of the year:	.....	.....	.....	.....	.....	.....	.....	.....	.....
Blairmore, Crows Nest Pass, Municipal (9 mos.)	\$ 38,065.23	\$ 84,959.80	\$ 123,025.03	\$ 21,046.57	\$ 101,978.46	\$ 6,157.90	.....	\$ 62,218.14	\$ 170,354.50
Bonnyville, K.H.P. (8 mos.)	6,672.40	1,963.57	8,635.97	1,301.95	7,334.02	1,176.10	.....	.....	8,510.12
Coleman, Miners' Union (4 mos.) .....	.....	Not Reporting	.....	.....	Not Reporting	.....	.....	Not Reporting	.....

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 6

Hospitals	Operating Cost Per Patient Per Day	Percentage of Cost							Revenue per Patient per day	
		Salaries and Wages	Supplies	Purchased Services	Insurance	Deprecia- tion	Repairs and Replace- ments	Interest and Exchange		Miscel- laneous
Athabasca, Municipal	\$ 6.17	46.4	31.6	8.8	1.0	6.5	3.0	0.0	2.7	\$ 6.31
Banff, Mineral Springs	7.78	51.8	37.2	3.0	0.7	2.6	3.5	0.1	1.1	7.57
Barrhead, St. Joseph's	5.44	49.6	36.7	5.0	0.5	2.2	4.6	0.3	1.1	5.52
Bassano, Municipal	6.75	43.3	33.5	10.5	0.6	6.5	4.4	0.5	0.7	6.06
Beaverlodge, Municipal	7.17	42.3	39.3	5.2	0.9	6.6	1.8	0.9	3.0	8.28
Bentley, Municipal	7.03	41.6	42.4	4.0	0.5	4.5	4.1	2.0	0.9	7.23
Berwyn, Municipal	5.10	47.1	32.1	6.5	1.1	9.9	1.6	...	1.7	7.11
Bonnyville, St. Louis	3.98	55.6	38.7	4.3	...	...	0.8	...	0.6	3.72
Brooks, Municipal	7.59	45.4	33.6	2.6	0.4	5.6	7.2	4.3	0.9	7.84
Cadomin, General		Not Reporting			Not Reporting			Not Reporting		
Calgary, General	7.49	53.9	34.8	2.0	0.7	...	5.1	0.9	2.6	7.09
Calgary, Holy Cross	7.43	47.4	33.5	2.1	0.9	6.7	4.1	0.9	4.4	7.57
Calgary, Junior Red Cross	5.21	65.7	27.1	5.4	0.5	1.1	...	...	0.2	5.21
Calgary, Salvation Army Grace	4.52	49.4	38.6	2.0	0.4	1.7	2.3	...	5.6	4.54
Camrose, St. Mary's	7.69	47.4	35.5	4.3	0.9	4.9	0.9	5.6	0.5	6.95
Canmore, Canmore	11.60	38.8	45.9	7.2	...	0.8	2.4	0.3	4.6	20.62
Cardston, Municipal	7.78	41.7	39.7	4.3	0.6	3.9	8.3	0.3	1.2	7.86
Carangay, Little Bow Municipal	9.03	46.9	34.1	5.9	0.7	...	11.1	...	1.3	7.76
Castor, Our Lady of the Rosary	6.50	29.0	41.2	3.3	1.4	...	24.6	...	0.5	5.63
Cereal, Municipal	8.09	42.9	41.6	4.8	0.4	8.0	2.2	0.0	0.1	8.08
Claresholm, Municipal	12.30	24.2	15.7	1.5	0.3	2.3	1.2	1.0	53.8	12.37
Cold Lake, John Neil	7.12	54.6	29.3	3.1	...	2.9	8.3	...	1.8	3.69
Consort, Municipal	7.06	35.5	31.9	3.7	0.2	15.8	3.3	9.0	0.6	6.96
Coronation, Municipal	6.87	43.2	34.7	5.6	0.5	4.7	9.2	0.6	1.5	7.52
Daysland, Providence	6.75	29.0	44.6	5.2	2.0	13.9	4.6	0.0	0.7	5.86
Desmarais, St. Martin's	8.71	29.8	56.8	5.6	1.1	3.0	1.8	...	1.9	6.47
Didsbury, Municipal	7.93	38.5	32.2	3.3	0.5	10.6	7.8	6.3	0.8	7.75
Drumheller, Municipal	7.24	50.0	36.9	4.7	0.7	3.0	3.5	0.0	1.2	7.29
Eckville, Municipal	6.01	38.1	35.0	5.8	1.0	10.6	2.7	5.7	1.1	7.84
Edmonton, Beulah Home	6.67	36.9	38.8	2.0	0.6	...	18.1	0.3	3.3	6.66
Edmonton, General	6.64	52.7	33.3	1.6	1.2	8.2	1.7	0.5	0.8	6.66
Edmonton, Misericordia	7.07	40.4	37.7	2.5	0.7	7.4	3.8	2.9	4.6	7.89
Edmonton, Royal Alexandra	8.54	53.2	32.3	1.9	2.7	1.4	2.6	2.0	3.9	8.54
Edmonton, University of Alberta	8.67	55.1	34.0	2.7	0.3	...	5.0	1.6	1.3	9.04
Edson, St. John's	5.29	45.8	34.4	3.7	0.7	8.3	6.0	0.1	1.0	5.33

Elk Point, Municipal	4.59	39.4	40.1	4.7	0.5	....	15.0	0.1	0.2	4.75
Elnora, Municipal	9.33	38.2	22.2	4.0	0.6	....	0.5	24.3	10.2	9.48
Empress, Municipal	5.56	44.3	46.8	2.7	0.0	6.1	3.3	...	0.1	6.29
Fairview, Community	5.74	42.3	38.7	7.3	0.8	7.4	6.0	6.7	0.2	6.19
Ft. McMurray, St. Gabriel's	9.51	40.2	32.5	5.9	0.8	6.3	...	...	1.6	6.20
Fort Vermilion, St. Theresa	3.95	23.2	55.8	7.9	3.2	8.6	...	1.3	0.1	4.08
Galahad, St. Joseph's	5.29	51.4	32.3	3.3	0.5	4.1	3.3	4.0	1.1	5.03
Grande Prairie, Municipal	5.77	40.0	30.7	4.3	0.5	7.5	4.1	0.0	12.9	7.18
Hanna, Municipal	8.90	51.4	31.2	3.9	0.7	4.9	5.4	0.5	2.0	8.39
Hardisty, St. Anne's	5.69	56.2	35.3	3.4	1.1	2.2	0.8	0.1	0.9	4.73
High Prairie, Providence	4.88	45.0	37.7	3.3	0.7	3.3	6.8	1.7	1.5	4.64
High River, Municipal	6.44	51.5	33.9	5.6	0.7	5.4	2.5	0.4	...	6.52
Innisfail, Municipal	5.90	49.2	35.0	5.1	0.7	6.4	3.4	0.2	...	5.18
Islay, Municipal	6.33	45.6	29.5	5.1	0.9	4.1	3.3	0.1	11.4	6.55
Jasper, Seton	7.34	43.7	41.1	3.6	0.2	....	1.5	9.5	0.4	8.15
Killam, General	6.29	45.2	37.2	2.6	0.2	6.9	3.6	3.5	0.8	5.74
Lacombe, Municipal	7.33	45.7	34.4	3.9	1.1	9.8	0.3	4.6	0.2	11.29
Lac la Biche, St. Catherine's	5.36	60.1	22.8	2.5	0.2	5.0	8.1	0.0	1.3	4.78
Lamont, Public	6.91	41.5	40.9	5.1	0.3	7.1	2.6	0.1	2.7	7.26
Lethbridge, Galt	6.30	39.9	50.2	4.6	0.3	0.6	3.4	0.1	0.9	6.38
Lethbridge, Isolation	4.30	62.1	21.6	7.9	0.2	....	5.8	...	2.4	3.40
Lethbridge, St. Michael's General	7.33	49.1	39.8	2.2	0.4	3.6	1.8	2.8	0.3	7.57
Macleod, Municipal	11.03	41.3	35.4	8.4	1.4	5.6	5.6	1.7	0.6	12.40
McLennan, Sacred Heart	6.45	42.6	38.3	4.4	0.3	3.7	6.7	0.5	3.5	6.28
Magrath, Municipal	10.10	54.0	30.7	4.8	0.5	4.2	0.7	0.5	4.6	11.23
Manning, Battle River	9.23	34.8	34.8	5.3	0.2	....	23.3	...	1.6	9.11
Mannville, Municipal	5.91	41.0	39.2	7.0	0.5	4.9	1.0	0.1	6.3	6.85
Mayerthorpe, Municipal	9.50	34.5	29.9	6.0	1.5	13.4	5.1	9.3	0.3	9.26
Medicine Hat, General	7.27	45.3	46.3	3.5	0.5	1.5	1.7	0.3	0.9	7.44
Medicine Hat, Isolation		Not Reporting			Not Reporting			Not Reporting		
Mundare, General	4.98	33.9	37.8	2.7	0.3	6.2	4.3	0.4	14.4	5.77
Myrnam, Municipal	11.86	46.1	34.2	5.9	0.8	5.5	7.1	0.0	0.4	12.28
Nordegg, General		Not Reporting			Not Reporting			Not Reporting		
Olds, Municipal	10.14	28.0	24.1	3.2	0.7	10.6	1.6	4.8	27.0	8.86
Oyen, Municipal	7.75	37.9	35.8	9.3	0.6	6.7	6.4	3.3	....	8.37
Peace River, Municipal	7.98	42.3	40.5	7.0	0.5	2.1	2.5	5.1	....	6.98
Pincher Creek, St. Vincent's	4.95	38.0	34.1	5.7	0.7	7.8	11.3	2.4	....	6.04
Ponoka, Municipal	7.66	43.0	25.5	4.0	1.3	14.2	4.9	6.8	0.3	8.40
Provost, Municipal	8.78	42.1	37.0	3.5	0.5	4.9	12.0	0.0	0.0	8.50
Radway, St. Joseph's	4.88	45.9	41.3	5.4	0.9	3.9	1.3	0.0	1.3	5.65
Raymond, Municipal	7.55	45.5	34.9	5.1	0.6	5.9	1.0	6.4	0.6	8.75
Red Deer, Municipal	6.72	52.7	32.6	6.6	0.6	4.4	1.1	1.4	0.6	6.65
Rimbey, Municipal	8.48	33.9	32.0	6.6	1.2	13.8	2.0	10.1	0.4	10.04
Rocky Mountain House, Municipal	5.46	46.0	36.4	5.4	1.0	3.8	4.5	2.8	0.1	6.67
Smoky Lake, George McDougall	9.21	46.0	28.4	6.9	0.3	12.9	3.8	0.4	1.3	5.15

TABLE No. 6—Continued

Hospitals	Operating Cost Per Patient Per Day	Percentage of Cost							Revenue per Patient per day	
		Salaries and Wages	Supplies	Purchased Services	Insurance	Deprecia- tion	Repairs and Replace- ments	Interest and Exchange		Miscel- laneous
Spirit River, Holy Cross	8.18	45.3	30.2	2.5	0.7	2.0	6.2	3.2	9.9	7.68
Stettler, Municipal	7.08	41.3	42.4	2.6	0.5	5.1	2.2	5.0	0.9	10.40
St. Paul, St. Theresa	5.05	43.8	36.9	2.9	0.5	6.1	7.1	2.0	0.7	4.95
Taber, Municipal	5.46	48.6	33.0	4.3	1.0	4.7	4.2	4.2		6.84
Three Hills, Municipal	16.64	27.8	18.7	5.1	0.7	11.9	2.3	6.1	27.4	16.81
Tofield, Municipal	7.60	35.1	33.0	3.6	0.7	15.5	2.6	9.5	....	8.07
Trochu, St. Mary's	10.58	55.1	24.1	3.3	0.3	15.7	1.1	0.0	0.4	10.08
Turner Valley, Oilfields General		Not Reporting			Not Reporting			Not Reporting		
Two Hills, Municipal	9.91	37.6	30.8	4.0	1.1	12.3	1.8	9.5	2.9	11.16
Vegreville, General	6.11	37.9	38.8	6.7	1.1	9.5	5.5	....	0.5	6.03
Vermilion, Municipal	4.88	46.5	32.3	9.0	....	8.2	3.3	0.6	0.1	5.04
Viking, Municipal	6.14	47.5	40.0	5.1	1.0	2.4	1.4	0.2	2.4	5.89
Vilna, Our Lady's	6.91	51.4	29.7	1.0	1.2	5.8	8.3	0.1	2.5	4.85
Vulcan, Municipal	6.95	44.0	32.6	5.9	0.6	6.4	3.4	7.1	..	9.17
Wainwright, Municipal	7.90	39.5	29.5	3.3	0.9	16.2	1.6	8.4	0.6	9.43
Westlock, Immaculata	6.76	45.9	23.9	3.3	1.3	2.2	19.1	3.7	0.6	6.54
Wetaskiwin, Community	5.40	45.2	34.5	5.4	0.8	8.9	4.5	0.1	0.6	5.31
Willingdon, General	6.08	44.4	32.9	2.4	0.4	5.9	1.1	0.0	12.9	7.38
Total.....	\$ 7.29	48.0	34.8	3.2	0.9	4.2	3.9	1.9	3.1	\$ 8.14
Hospitals in operation for only part of the year:										
Blairmore, Crows Nest Pass, Municipal ((9 mos.)	\$12.73	42.8	24.7	2.2	....	21.0	....	9.3	....	\$19.31
Bonnyville, K.H.P. (8 mos.)	11.39	43.9	31.4	1.8	....	13.3	3.6	....	6.0	4.79
Coleman, Miners' Union (4 mos.)		Not Reporting			Not Reporting			Not Reporting		

Division of Tuberculosis Control

DR. A. H. BAKER, B.A., M.B., F.R.C.P. (C), *Medical Superintendent
and Director, Division of Tuberculosis*

The anti-tuberculosis work of this Division is so closely correlated with that of the Indian Affairs Branch of the Federal Government and with that of the Alberta Tuberculosis Association that any appraisal of the program being carried out necessarily will include due recognition of all activities. All three are co-operating in a co-ordinated effort to cover as fully as possible all phases of anti-tuberculosis work for all residents of this Province, and without duplication of services.

The work of the Division, as regards diagnosis and treatment followed the same general plan as in previous years. However, additional services were made possible under the Federal Tuberculosis Control Grant.

1. Free sanatorium treatment for non-pulmonary tuberculosis was established on February 1st. It is believed that more adequate treatment will result, since the necessary period of hospitalization will not be limited because of financial outlay. Hospital admissions numbered 119 from February 1st to December 31st; hospital patient days were 11,085. There were 36 operations performed.

2. Diagnostic Clinic Physicians: It was planned to employ two full-time physicians in clinic work. One only has been appointed owing to inability to place another physician in this work, but it is hoped that the full programme may be carried out next year.

3. Free Streptomycin: This anti-biotic, along with paramino-salicylic acid (PAS), has been made available to all sanatorium patients needing the same. This new treatment, while not a cure-all, has proven to have real value. Lives are saved. Recovery takes place more frequently and apparently in less time. Surgical procedures are undertaken, which without these drugs, would be contraindicated.

4. Sanatorium affiliation with training schools for nurses: Affiliation was brought about with four hospitals, the Galt in Lethbridge, the Medicine Hat General Hospital, the Holy Cross in Calgary, and the Lamont General Hospital. Six courses of eight weeks' duration have been given to groups of eight affiliates. A full-time instructress has been appointed. Lectures and demonstrations are given in all phases of sanatorium treatment. It is believed that this experience has been found well worth while by the affiliates. A number of these nurses, upon graduation, have returned to the Sanatorium to work.

5. Portable clinic equipment has been provided and is available for use in the Province.

6. Travelling X-Ray Technician Instructor: This one project has yet to be implemented, when a suitable appointment can be made.

7. Improvement in Sanatorium Libraries: The libraries in Edmonton and Calgary have added useful reference books and journals.

8. Equipment, Central Alberta Sanatorium: Certain technical equipment has been procured.

9. Technical Equipment, Wm. Aberhart Memorial Sanatorium: A large part of this equipment is now in storage in Edmonton, awaiting the completion of this building.

10. Technical Equipment for Diagnostic Clinic, Central Alberta Sanatorium: A part has been procured, the rest will be made available next year.

William Aberhart Memorial Sanatorium Cornerstone Laying

This ceremony, which marked an important event in the tuberculosis programme of the Province, was held on October 14th. It was most fitting that the cornerstone was laid by Mrs. William Aberhart, who very kindly came to Edmonton for the occasion. A large and representative gathering was present.

The Honourable the Premier Mr. E. C. Manning was Chairman and in his remarks paid tribute to the anti-tuberculosis programme of the Province.

Tea was served in the Nurses' Home of the University Hospital.

New Construction at Central Alberta Sanatorium

The New Recreation Building at the Sanatorium was opened for use September 26th. The auditorium accommodates 300 people, and is attractive in appearance. Two new movie projectors and new screen were presented to the Sanatorium by the Entertainment Committee. The Alberta Tuberculosis Association donated 250 folding metal chairs, the stage and window drapes, and the equipment in the Occupational Therapy rooms. This building, with its equipment, is a credit to the institution. The facilities for handicraft work and for recreation will add much to sanatorium life.

The Chapel was opened for its first religious service October 30th. We are indebted to the Alberta Tuberculosis Association for the furniture in the sanctuary. This gift stands as a memorial to Mr. E. C. Shaughnessy and Mr. W. Way, two of the founders of the Alberta Tuberculosis Association in 1939. Grateful acknowledgment is made of the gifts of Mrs. J. H. Woods and of the Samaritan Club to help in furnishing this place of worship. Religious services are much appreciated by both patients and staff, and it is with real satisfaction that fitting accommodation is now offered.

The Girls' Home—Modern, comfortable quarters became available with the completion of this building in July. Fifty-five girls can now be accommodated. Good living conditions have resulted in greater contentment and less change of staff.

The Workshop—The completion of this building provided, for the first time, adequate shops for the painter, carpenter, plumber and electrician. This institution comprises some thirty building structures, with diversified types of equipment, all of which require maintenance work.

The construction of a duplex home for two physicians was undertaken in the Fall. Experience has shown that provision of housing accommodation is an essential if a medical staff is to be

maintained at the Calgary Sanatorium. The inducements of private practice, added to the inconvenience of living ten miles away, deprives the Sanatorium of physicians who otherwise are willing to engage in tuberculosis work.

Diagnostic Services

Clinics operated by the Division of Tuberculosis conducted 8,411 examinations.

Mobile X-ray units X-rayed 73,022.

X-ray films submitted by physicians and hospitals for interpretation numbered 7,575.

All told, the Provincial Government supplied some form of diagnostic service to some 89,000 people.

Surveys including general hospital admissions, tuberculin testing and X-raying, sponsored by the Alberta Tuberculosis Association and carried out at 36 hospitals, numbered 24,616. Abnormal films were referred to sanatorium physicians for reading.

The Indian Affairs Branch surveyed 10,120, an increase of 2,437.

In summary, it may be said that approximately 124,000 residents of Alberta received some form of free diagnostic service.

The large decrease in Mobile Unit examinations was due to a shorter season, and to the fact that the points visited had smaller populations, necessitating more frequent moves.

Through the courtesy of the Indian Affairs Branch, 694 residents of northern portions of the Province were X-rayed by their X-ray unit travelling by aeroplane. In this way, the Division has been able to supply a degree of diagnostic service to people living in more sparsely settled districts.

After excluding the work of the Indian Affairs Branch, which is listed separately, we find that new cases of tuberculosis discovered were as follows:

Active Pulmonary Tuberculosis	361
Inactive Pulmonary Tuberculosis	418
Active Non-pulmonary Tuberculosis	98
Inactive Non-pulmonary Tuberculosis.....	4
Total.....	881

ALBERTA INDIAN SURVEYS CONDUCTED BY DR. H. MELTZER
CHARLES CAMSELL INDIAN HOSPITAL, EDMONTON, ALBERTA
(Department of National Health and Welfare)

Agency	Date 1948	No. X-Rayed		Pulmonary Tuberculosis		Non-Pulmonary Tuberculoses		Indians tub. adm. to Chas. Camsell, 1948
		Ind.	White	Active	Inactive	Active	Inactive	
Athabasca	June	1399	299	38	166	2	1	29
Blackfoot	April	674	4	11	64	....	1	6
Blood	June	1084	9	16	85	....	....	18
Edmonton	June	172	....	8	47	....	....	30
	Aug.	735	10	13	61	....	....	....
Fort Vermilion	Aug.	712	3	26	200	....	....	11
Hobbema	July	1297	31	13	146	....	....	29
Lesser Slave Lake ...	Aug.	413	....	12	91	....	....	25
	May	728	267	24	68	3	....	....
	Sept.	110	5	5	41	....	....	....
Peigan	April	563	21	9	34	....	1	8
Saddle Lake	July	965	19	18	79	....	1	17
Sarcee	June	117	8	....	19	....	....	3
Stony	April	457	18	10	22	....	....	11
		9426	694	203	1123	5	4	187

The Department of Indian Affairs conducted 15 surveys or clinics, at which 10,120 persons were X-rayed. There were 185 new active pulmonary tuberculosis cases and 44 new active non-pulmonary tuberculosis cases discovered through this service.

There were 15 whites from the Northwest Territories admitted to Charles Camsell Indian Hospital suffering from active tuberculosis. Of these cases, 14 were pulmonary and 1 was non-pulmonary.

D.V.A. patients treated in Charles Camsell Hospital were 61. Admissions were 21.

Treatment Services

Total sanatorium admissions were 650, an increase of 217 over last year.

Total number of in-patients treated 1,030, an increase of 217 over last year.

Forty-one out-patients received pneumothorax treatments at some fourteen points throughout the Province.

On October 23rd a Children's Ward was opened at Central Alberta Sanatorium with accommodation for 12. It has been occupied to capacity; types of cases under treatment are pulmonary, bone and joint, and meningeal.

The surgical treatment of both pulmonary and non-pulmonary types of disease is extensively used. Details of the volume and nature of the work will be found in the statistical section of this report. Where necessary, the services of specialists are employed and remuneration made according to agreement with the College of Physicians and Surgeons of Alberta.

Training of Nurses

In addition to the 48 undergraduate affiliates who served at the Sanatorium, a course was offered to graduate nurses. Fourteen engaged in post-graduate work.

Nurses aides also received training in tuberculosis work. Twenty-eight aides were enrolled.

Auxiliary Services

The Sanatorium schools in Edmonton and Calgary have carried on a splendid work under well-qualified and devoted teachers. Public school, high school, University and commercial studies are carried on.

The Occupational Therapy Departments are very active. Over 200 patients are always taking advantage of this work.

The Rehabilitation Branch continues to survey all patients and to give guidance and help in preparation for the day when they are able to be discharged.

Acknowledgments

The tuberculosis death rate among Indians is some twenty times that of the rest of the population. It is therefore apparent that this load of an infectious disease is of significant concern to the Province. It is a pleasure to give credit to the Indian Affairs Branch for maintaining diagnostic and treatment services which compare most favourably with those of this Division. The improvement in this disease situation among the Indians will un-

doubtedly result in further improvement in the rest of the population.

The Alberta Tuberculosis Association completed a year of activity in which much was done to assist in the general programme of anti-tuberculosis work. Some of their activities are as follows: assistance in organizing Mobile X-ray clinics; rehabilitation in Edmonton and Calgary; donations of equipment in Edmonton and Calgary; province-wide publicity and education, through newspapers, radio and movies; scholarships for medical students to encourage study of tuberculosis; assistance to full-time physicians and nurses engaged in tuberculosis work to encourage post-graduate study; essay contests among public and high schools; a campaign to give chest X-rays to all general hospital admissions; social work among tuberculosis families; full-time tuberculosis nurses in Edmonton and Calgary.

Last year thirty-five general hospitals X-rayed the chests of 14,730 patients admitted. The object in this admission X-ray is not only the discovery of tuberculosis for the patient's benefit, but also to allow greater protection of the staffs from unnecessary gross exposure.

The Department of Veterans Affairs has extended the benefits of treatment to a large group of ex-service personnel. To this extent the Province benefits, since the cost of treatment is borne by Federal authority.

Staff

The maintenance of an adequate nursing service has been less difficult than formerly, partially due to the number enrolled in our teaching courses as well as the return of some nurses after graduation.

The medical staff is still not complete because of inability to procure physicians.

The domestic and general staff situation has been more satisfactory than for some years.

Retirement of Col. E. R. Knight, Business Superintendent: Col. Knight retired September 30th after 29 years at Central Alberta Sanatorium. His combined service in sanatorium work in Alberta was over thirty years, he having started at the Military Sanatorium at Frank. Throughout all these years he was a loyal, conscientious and efficient member of the staff. A farewell party and presentation on September 26th very fittingly was the occasion of the opening of the new recreation building.

An Aggressive Programme is Still Essential

Alberta, in common with other provinces, realized a remarkable decrease in tuberculosis deaths during 1948. It now appears, from preliminary figures, that 1949 will show a further decrease in mortality from this disease. This is very encouraging, and is no doubt due in no small measure to the Province-wide campaign for discovery of new cases through the examination of thousands of people; to this is added much more effective treatment, so that recovery takes place in more people; and at the same time, more and more people are treated at an earlier stage of disease, when recovery is much more certain.

It must be emphasized, however, that the time has not yet arrived when anti-tuberculosis efforts can be reduced, since more tuberculous people are being found through the aggressive preventive measures, as is evidenced by the larger number of sanatorium admissions. There is good reason to believe that before too long the incidence of tuberculosis will be materially reduced, provided every effort is made in the preventive work.

Administration

These figures refer to the fiscal year ending March 31st, 1950, whereas those in the balance of this report are for the calendar year 1949.

Gross operating cost—Central Alberta Sanatorium	\$502,808.56
Revenue	108,279.10
Net cost—Central Alberta Sanatorium	394,529.46
Gross cost per patient per day	5.62
Net cost per patient per day	4.41
Hospital cost—Edmonton and elsewhere	365,030.97
Revenue	7,706.38
Net cost—Edmonton and elsewhere	357,324.59
Cost of Clinic Service:	
Treatment—Out-patient Pneumothorax	\$ 4,818.50
Mobile X-Ray Units	20,151.09
Other Diagnostic Services	14,103.03
	<u>39,072.62</u>
Gross expenditure by Province	\$906,912.15

Cost of projects under the Federal Tuberculosis Control Grant are not included in the above figures.

Patient Days:

Pulmonary Tuberculosis:

Central Alberta Sanatorium	85,098
Edmonton General Hospital	42,091
Royal Alexandra Hospital	11,002
University Hospital	6,162
Other Hospitals	1,711
Reciprocal Agreements	1,200
	<u>147,264</u>

Non-Pulmonary Tuberculosis:

Central Alberta Sanatorium	4,546
Other Hospitals	9,131
	<u>13,677</u>

Total patient days

160,941

The total number of meals served was 437,560 and the food cost per meal \$.2736.

Recommendations

It is desired to make the same recommendations as last year:

1. The speedy completion of the William Aberhart Sanatorium.
2. The construction of a building for nurses and female domestic staff at this new Sanatorium.
3. The construction of a laundry at the new Sanatorium.
4. An addition to the Administration Building at Central Alberta Sanatorium to provide adequate Operating Room facilities, extension of X-ray Department, and provision of adequate room and facilities for the hundreds of people coming for diagnosis. This is an urgent and vital matter, if the scope of the Tuberculosis Act is to be realized.
5. Improved transportation facilities from Calgary to the Sanatorium. This will involve the improvement of the road from the Bowness highway to the Sanatorium.
6. Co-operation with the general hospitals and the Alberta Tuberculosis Association in promoting the X-ray chest examinations of all hospital admissions.
7. The salary schedule, especially of technical staff, needs revision.

Acknowledgments

It is a pleasure to express my deep appreciation of the great assistance given by the Honourable Dr. W. W. Cross, Minister of Health, and by Dr. M. R. Bow, Deputy Minister.

Grateful acknowledgment is made of the many kind acts of friends and organizations throughout the Province in providing entertainment and comforts for the patients.

To Mr. E. L. Appleby, Chief Engineer, and his staff, I extend my thanks for another year's splendid co-operation in maintaining Sanatorium services.

I wish also to thank every member of the staff, both in Edmonton and Calgary, for their splendid assistance and interest in carrying on the anti-tuberculosis work of the Division of Tuberculosis Control.

DIAGNOSTIC CLINIC REPORT

Place	No. of Sessions	New Cases Tuberculosis		New Number Exams.	Number Review Exams.	Total
		Pul. Active	Non-Pul. Active			
STATIONARY CLINICS:						
Calgary	50	3	....	178	206	384
Camrose	4	2	....	21	35	56
Central Alberta Sanatorium	102	36	3	1049	1725	2774
Drumheller	12	5	....	141	125	266
Edmonton	104	150	13	1878	2067	3945
Lethbridge	8	4	....	150	181	331
Medicine Hat	10	6	1	145	148	293
Red Deer	6	5	....	152	103	255
Stettler	1	....	....	11	....	11
Vegreville	4	2	....	33	45	78
Total	297	213	17	3758	4635	8393
TRAVELLING CLINICS:						
Barrhead	1	....	....	14	4	18

In addition to these 230 new cases of active Tuberculosis, there were also discovered 507 new cases of inactive Tuberculosis.

TUBERCULIN TESTING AND X-RAY SURVEYS

(Conducted by Public Health Nurses, Teachers, Business Firms, Hospitals, etc.)

	Number Tested	Number X-Rayed
Central Alberta Sanatorium .....	....	268
Wheatland School District	52	1
Blood Transfusion Service .....	....	7
Faculty of Education, Calgary	215	13
Charles E. Frosst & Co. Staff .....	....	4
Medicine Hat Seal Survey .....	....	40
Student Nurse Aides	209	209
Edmonton District	199	69
*Banff-Mineral Springs Hospital	374	89
Barrhead-St. Joseph's Hospital	34	34
Beaverlodge, Municipal Hospital	160	20
Calgary, Holy Cross Hospital .....	....	1664
Castor, Our Lady of the Rosary Hospital.....	469	20
Cardston, Municipal Hospital	734	97
Cold Lake, John Neil Hospital	77	5
Consort, Municipal Hospital	46	3
Daysland, Providence Hospital	50	7
Didsbury, Municipal Hospital	143	6
Drumheller, Municipal Hospital	2206	190
Eckville, Municipal Hospital	282	23
Edmonton, Royal Alexandra Hospital .....	....	6922
Fairview, Community Hospital	94	4
Hanna, Municipal Hospital	403	43
Hardisty, St. Anne's Hospital	130	7
High River, Municipal Hospital	680	25
Innisfail, Municipal Hospital .....	....	23
Islay, Municipal Hospital	67	2
Lac La Biche, St. Catherine's Hospital	192	20
Lacombe, Municipal Hospital	263	19
Lamont, Public Hospital .....	....	2180
Lethbridge, St. Michael's Hospital .....	....	2254
Mundare, General Hospital	45	4
Oyen, Municipal Hospital	68	4
Peace River, Municipal Hospital	201	20
Ponoka, Municipal Hospital	159	15
Raymond, Municipal Hospital	85	2
Red Deer, Municipal Hospital	590	200
Three Hills, Municipal Hospital	155	18
Tofield, Municipal Hospital	66	9
Vegreville, General Hospital	1091	135
Viking Municipal Hospital	118	10
Wainwright, Municipal Hospital	325	35
Wetaskiwin, Community Hospital	399	....
Westlock, Immaculata Hospital	924	10
	11,305	14,730

*All points listed after this signal refer to persons patch tested and/or X-rayed upon admission to hospital. This service is under the sponsorship of the Alberta Tuberculosis Association.

N.B.—Total number of persons receiving service through Surveys is 24,616, i.e., number tuberculin tested plus those X-rayed without having been previously tuberculin tested as shown in table above.

MOBILE UNIT SURVEYS

	No. X-rayed		No. X-rayed
Alix	819	Leslieville	1050
Athabasca	476	Morrin	386
Alberta Nitrogen Plant, Calgary ...	297	Morinville	1376
Barrhead	2375	Newbrook	1276
Beaverlodge	1409	Oliver Mental Hospital	1058
Bentley	1118	Pickardville	515
Benalto	249	Plamondon	922
Cambria	193	Red Deer	5335
Camrose (Rosehaven)	274	Red Deer Prov. Training School ...	234
Castor	1144	Rimbey	1267
Chauvin	1066	Rocky Mountain House	1871
Clyde	549	Rosedale	629
Coronation	1007	Ryley	948
Debolt	497	St. Albert	1147
Delia	503	Sexsmith	501
Drumheller	4134	Smith	60
East Coulee	1221	Stettler	3717
Eckville	1319	Sylvan Lake	1166
Edgerton	816	Tangent	490
Flatbush	479	Tawatinaw	423
Fort Assiniboine	423	Tofield	1869
Grande Prairie	2396	University Hall	999
Grassland	654	Valleyview	367
Hanna	2066	Viking	1476
Holden	1336	Wainwright	2063
Hythe	1123	Wayne	261
Innisfail	2666	Wembley	662
Irma	782	Westlock	1240
Jarvie	766	Winfield	1903
Lacombe	2436		
Lac La Biche	2398		73,022
Legal	820		

SUMMARY

No. X-rayed	73,022	Non-Tub.	857
Probable Tub.:		Parenchymal or Hilar Calc.....	364
Active	60(3)	Pleurisy:	
Inactive	528(149)	Active	15
Adm. Adv.	34	Inactive	476
Adm.	32	No disease	67,419
Further examination	670		

Figures in brackets denote tuberculosis cases previously discovered—these are included in immediately preceding figure.

SUMMARY—CLINICS AND SURVEYS

	No. Sessions	Total	No. Exams.
Stationary Clinics	297		8,393
Travelling Clinics	1		18
Surveys (all types)	43		24,616
Indians (work done by Department National Health and Welfare)	15		10,120
Mobile Unit Surveys	60		73,022
	<hr/> 416		<hr/> 116,169

SOURCES OF DISCOVERY OF NEW CASES OF TUBERCULOSIS
(Indians excluded)

	1948	%	1949	%
Clinics	636	76.5	622	70.5
Referred for admission by family physicians	141	17.0	226	25.6
Surveys	2	.2	....	....
Referred by D.V.A.	22	2.6	5	.8
Provincial Laboratory	11	1.3	6	.7
Staff, Central Alberta Sanatorium .....	....	....	3	.3
Other sources	19	1.9	19	2.1
	<hr/> 831		<hr/> 881	

N.B.—Mobile Unit data not included in above table as Mobile Unit diagnoses only tentative. When established these diagnoses are included in one of above classifications.

CLASSIFICATION OF 881 NEW CASES OF TUBERCULOSIS
(all forms)

Active pulmonary tuberculosis	361
Inactive pulmonary tuberculosis	418
Active non-pulmonary tuberculosis	98
Inactive non-pulmonary tuberculosis	4
	<hr/> 881

DEPARTMENT OF PUBLIC HEALTH

CLASSIFICATION OF 779 NEW CASES OF ACTIVE AND INACTIVE PULMONARY TUBERCULOSIS (Indians not included)

Minimal	415	53.4
Moderately advanced	192	24.5
Far advanced	58	7.6
Primary	70	8.8
Tuberculosis pleurisy with effusion	44	5.6
	779	
Number of non-residents diagnosed as having tuberculosis	10	
Examination of known contacts of newly discovered cases of tuberculosis	1752	
Number of known contacts examined	1251	71.4

TUBERCULIN MAILING LIST, 1949

Clinics and Health Units	12
Hospitals	9
Miscellaneous	14
In addition to the above the following were sent in response to requests:	
Dilution No. 4	12 bottles
Dilution No. 3	232 bottles
Dilution No. 2	51 bottles
Dilution No. 1	2 bottles
Patches	263

INSTITUTIONAL REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	University of Alberta Hospital	Royal Alexandra Hospital	Others
Patients under treatment Jan. 1, 1949.....	210	122	19	29	2
Patients admitted	235	289	39	77	10
Patients transferred in	24	36	21	5	....
Total treated	469	447	79	111	12
Discharged and died	211	275	43	60	8
Patients transferred out	4	50	8	21	3
Total discharged	215	325	51	81	11
Patients under treatment Dec. 31, 1949.....	254	122	28	30	1
Patient days, 1949 (calendar year)	87,674	47,369	9,730	11,059	1,960
No. patients under treatment Jan. 1, 1949					380
No. of admissions during 1949					650
Total treated					1,030

DIAGNOSIS OF 650 PATIENT ADMISSIONS

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Non-tuberculous	13	6	19
For diagnosis	6	30	36
Pleural Effusion	6	26	32
Tuberculosis, Inactive	2	3	5
Primary tuberculosis	11	18	29
Non-Pulmonary Tuberculosis	33	86	119
Pulmonary tuberculosis active:			
Minimal	45	54	99
Moderately advanced	60	125	185
Far advanced	57	64	121
Miliary	2	1	3
Silico tuberculosis .....	....	2	2
	235	415	650
N.B.—General Section admissions are included in the above.			
Number with positive sputum on admission..	75	97	172
Number with negative sputum on admission, positive later	20	9	29
Number persistently negative	140	309	449
	235	415	650
Of the above 650 admissions, re-admissions were	55	77	132

Of the above 650 admissions 19 were both admitted and re-admitted during 1949—i.e., 631 individuals were admitted during 1949.

In addition to the above there were 1,293 patient days in other provinces under reciprocal agreement. Number of patients, 7.

Total institutional patient days' including 1,293 paid for in other provinces under reciprocal agreement, 159,085.

Number of institutional patient days provided for non-residents under reciprocal agreements, 618.

Number of patients, 7.

OPERATING ROOM REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University of Alberta Hospital	Others	Total
THORACOPLASTY:						
Number stages	89	...	3	...	...	92
Number of cases	45	...	1	...	...	46
Number of revisions	10	...	...	...	...	10
Pneumolysis, closed	32	30	...	...	...	62
Phrenicophraxis	10	17	2	...	...	29
Thoracoscopy .....	...	13	...	...	...	13
Aspiration, pleural	340	38	4	...	...	382
Aspiration, other	95	14	...	...	...	109
Instillation gomenal	17	...	...	...	...	17
Bronchoscopic examination	2	2	...	3	...	7
Lipiodol, chest sinus	2	...	...	...	...	2
Rib resection	6	...	...	...	...	6
Spinal fusion	2	4	...	1	...	7
Nephrectomy	4	5	1	1	1	12
Nephro-ureterectomy .....	...	1	...	...	...	1
Pyelonephrolithotomy orchidectomy vasc-	...	1	...	...	...	1
ectomy	6	5	1	...	...	12
Cystoscopic examination	4	...	...	...	...	4
Proctoscopy	1	...	...	...	...	1
Excision tuberculous sinus	1	...	...	...	...	1
Excision tuberculous cyst from hip	1	...	...	...	...	1
Removal tuberculous cervical gland	1	...	1	...	...	2
Lumbar puncture	93	193	...	...	1	287
Intercostal drainage	2	...	...	...	...	2
Intracavity pressure	1	...	...	...	...	1
Implantation Cortate pellets	1	1	...	...	...	2
Wound closure and drainage	2	...	...	...	...	2
Suprapubic drainage-abscess	1	...	...	...	...	1
Abdominal drainage extra peritoneal abscess	1	...	...	...	...	1
Removal cyst from face	1	...	...	...	...	1
Removal cyst on neck .....	...	...	...	1	...	1
Plaster cast	21	15	2	...	...	38
Repair abdominal wound .....	...	2	...	...	...	2
Radical mastectomy .....	...	1	...	...	...	1
Biopsy-skin of ankle .....	...	1	...	...	...	1
Tonsillectomy .....	...	...	1	...	...	1
Arthrodesis sacro-iliac .....	...	2	...	...	...	2
Arthrodesis ankle .....	...	1	...	...	...	1
Arthrodesis ankle and subastragaloid joint .....	...	1	...	...	...	1
Arthrodesis knee .....	...	2	...	1	...	3
Arthrodesis hip .....	...	1	...	...	1	2
Excision great trochanter .....	...	1	...	...	...	1
Drainage knee abscess .....	...	2	...	...	...	2
Cystic cavity excision .....	...	...	1	...	...	1
Exploratory laparotomy .....	...	...	1	...	1	2
Intestinal resection .....	...	1	...	...	1	2

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	Total
Summary of Pneumothorax Cases:				
Under treatment Jan. 1, 1949	155	120	10	285
New cases started during 1949	56	60	10	126
No. cases under treatment an admission ...	10	12	1	23
	221	192	21	434
Number cases discontinued	66	81	8	155
Number transferred out of Alberta.....	3	2	1	6
Number transferred to other sections of Division	23	4	2	29
	92	87	11	190
Under treatment December 31, 1949	129	105	10	244
Unsuccessfully attempted	14	15	2	31
Refills:				
Resident	3302	2294	361	5957
Out patient	1988	2119	32	4139
Total.....	5290	4413	393	10,096

In addition to the above, 585 pneumothorax refills were given to 41 ex-sanatorium patients at the following points: Beaverlodge, Drumheller, Elk Point, High Prairie, La-combe, Lamont, Lethbridge, Medicine Hat, Peace River, Ponoka, Provost, Red Deer, St. Paul, Wainwright.

Summary Pneumo-Peritoneum Cases:				
Under treatment Jan. 1, 1949	2	4	....	6
New cases started during 1949	7	20	....	27
Cases discontinued	5	9	....	14
Under treatment December 31, 1949	4	15	....	19
Number of refills	171	395	....	566

X-RAY DEPARTMENT REPORT

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University of Alberta Hospital	Total
RADIOGRAPHS MADE:					
Thorax	5,113	4,808	200	127	10,248
Spine	85	23	4	6	118
Pelvis	19	15	1	....	35
Knee	5	10	....	....	15
Skull	1	....	....	....	1
Sinuses	3	2	3	....	8
Teeth	43	12	2	....	57
Shoulder	20	2	....	....	22
Hand	9	3	....	....	12
Wrist	2	....	....	....	2
Arm	1	....	....	....	1
Elbow	2	1	....	....	3
Sacro-iliac	5	....	....	....	5
Hips	7	1	....	1	9
Femur .....	....	1	....	....	1
Ankles	7	6	....	....	13
Feet	2	2	....	....	4
Ribs	3	....	....	....	3
Nasal bones and orbits .....	....	....	1	....	1
Bronchogram	4	7	1	....	12
Abdomen	2	4	....	1	7
Gall Bladder	3	2	1	....	6
Gastro Intestinal Tract	11	....	1	....	12
Kidneys, ureters, bladder	5	....	....	....	5
Intravenous pyelogram	20	15	4	....	39
	5,372	4,914	218	135	10,639
FLUOROSCOPIC EXAMINATIONS:					
Thorax	6,380	5,175	336	29	11,929
Gastro Intestinal Tract	11	66	3	1	81
	6,400	5,241	339	30	12,010
Films referred for Interpretation	3,043	4,532	....	....	7,575
Basal Metabolism Rate	13	1	....	....	14
Cardiogram	4	....	1	1	6

LABORATORY REPORTS

	Central Alberta Sanatorium				Edmonton General Hospital	Royal Alexandra Hospital	University of Alberta Hospital	Total
	In Pts.	Out Pts.	Staff	Total				
SPUTUM EXAMINATIONS:								
Positive	973	85	....	1,058	647	189	82	1,976
Negative	1,741	616	....	2,357	992	518	125	3,992
URINE EXAMINATIONS	3,583	121	20	3,724	897	686	159	5,466
BLOOD EXAMINATIONS:								
Blood count	737	....	48	785	1,335	103	11	2,234
Sedimentation	597	522	....	1,119	768	199	85	2,171
Blood sugar	13	....	....	13	46	8	1	68
Non-protein nitrogen	10	....	....	10	....	....	....	10
Urea-nitrogen	11	....	....	11	....	....	....	11
Bleeding, clotting, typing ...	45	....	....	45	....	....	....	45
Packed Cell Volume	10	....	....	10	....	....	....	10
MISCELLANEOUS:								
Pleural fluid (figures for C.A.S. included in "others") .....	....	....	....	....	20	....	....	20
Gastric lavage	17	....	....	....	124	2	....	143
Gastric analysis .....	....	....	....	....	8	2	1	11
Guinea pig inoculation	120	119	....	239	76	....	5	320
Spinal fluid	63	....	....	63	231	....	....	294
Cultures	57	....	....	57	37	....	....	94
Others	277	....	....	277	172	34	....	483
WASSERMAN REPORTS:								
Positive	10	....	....	10	3	....	....	13
Negative	262	....	....	262	151	....	....	413
	<u>8,509</u>	<u>1,480</u>	<u>68</u>	<u>10,040</u>	<u>5,507</u>	<u>1,741</u>	<u>469</u>	<u>17,774</u>

HELIO THERAPY REPORT

	Central Alberta Sanatorium	Edmonton General	Total
Patients treated	14	60	74
Number of treatments	836	490	1,326

DENTAL REPORT

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra	Total
Number of patients	179	126	48	353
Number of treatments	149	356	97	602
Number prophylactic treatments	184	15	16	215
Number of fillings	444	189	62	695
Number of extractions	283	147	13	443
Number new dentures and repairs	44	7	6	57

CLASSIFICATION OF 597 DISCHARGED PATIENTS:

	On Admission. No.	Residence		On Discharge				
		31 days or less	Over 31 days	AA.	Q.	I.	U.	D.
1. For diagnosis	68	47	21	....	....	....	....	....
2. Primary tuberculosis	20	8	12	2	....	16	....	2
3. Re-infection type pulmonary tuberculosis clinical:								
Minimal	71	12	59	10	14	42	5	....
Moderately advanced	95	21	74	6	11	64	9	5
Far advanced	10	2	8	....	1	7	....	2
Re-infection type pulmonary tuberculosis bacillary:								
Minimal	4	....	4	....	....	3	1	....
Moderately advanced	104	10	94	....	20	69	8	7
Far advanced	132	10	122	....	24	58	10	40
Miliary	1	1	....	....	....	....	....	1
4. Tuberculous pleurisy	18	....	18	....	3	15	....	....
5. Non-pulmonary tuberculosis	74	28	46	2	2	60	6	4
Total active tuberculosis	529	92	437	20	75	334	39	66
Total treated .....	....	....	458	9	69	292	29	38
Total untreated .....	....	139	....	11	6	42	10	23
Grand Total	597	139	458	20	75	334	39	66

Explanation of abbreviations and terms used: The standard classification is that of the National Tuberculosis Association: "Minimal", "Moderately advanced", and "Far advanced" refer to the anatomical extent of disease; "AA" Apparently arrested, "Q" Quiescent, "I" Improved, "U" Unimproved, and "D" Died.

NOTE: Only those in residence over 31 days are classed as "Treated".

CLASSIFICATION ON ADMISSION OF 597 DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
For diagnosis	22	46	68
Primary tuberculosis	6	14	20
Pulmonary Tuberculosis, active	167	250	417
Tuberculosis pleurisy	4	14	18
Non-pulmonary tuberculosis	16	58	74
	<u>215</u>	<u>382</u>	<u>597</u>

DIAGNOSIS ON DISCHARGE OF 68 PATIENTS ADMITTED FOR DIAGNOSIS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Tuberculosis	1	11	12
Primary healed .....	...	3	3
Non-tuberculous pleurisy	4	...	4
Non-tuberculous pulmonary abscess	1	2	3
Bronchiectasis	1	4	5
Non-tuberculous cystic diseases .....	...	1	1
Non-tuberculous pneumonia	5	1	6
Non-tuberculous pulmonary fibrosis	3	1	4
Pulmonary infarct .....	...	1	1
Silicosis	1	...	1
Non-tuberculous upper respiratory in- fection	1	...	1
Pneumonitis .....	...	2	2
Asthma .....	...	1	1
Non-tuberculous debility	1	...	1
Non-tuberculous osteomyelitis of pubis with abscess	1	...	1
Non-specific osteomyelitis	1	...	1
Rheumatic spondylitis .....	...	1	1
Arthritis .....	...	1	1
Carcinoma suspect .....	...	2	2
Carcinoma of pancreas with secondary to liver .....	...	...	...
Thyroid .....	...	1	1
Anaemia .....	...	1	1
Mal-development .....	...	1	1
Non-tuberculous adenitis .....	...	1	1
No disease	1	8	9
Undiagnosed .....	...	3	3
	<u>22</u>	<u>46</u>	<u>68</u>

CLASSIFICATION ON DISCHARGE OF 437 TREATED CASES OF ACTIVE TUBER-
CULOSIS AND TUBERCULOUS PLEURISY:

On Admission:	Number	On Discharge		Died
		Improved	Unimproved	
Minimal	63	57	6	...
Moderately Advanced	168	144	16	8
Far Advanced	130	85	10	35
Primary	12	12	...	...
Miliary .....	...	...	...	...
Non-Pulmonary Tuberculosis	46	36	6	4
Tuberculosis Pleurisy	18	18	...	...
	<u>437</u>	<u>352</u>	<u>38</u>	<u>47</u>

*SEX:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Male	101	164	265
Female	114	218	332
	<u>215</u>	<u>382</u>	<u>597</u>

*SOCIAL STATUS:

Single	91	188	279
Married	113	167	280
Divorced	1	3	4
Widowed	8	17	25
Separated	2	7	9
	<u>215</u>	<u>382</u>	<u>597</u>

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
*OCCUPATIONS—WOMEN:			
At Home	10	25	35
Bank teller	1	....	1
Cashier	1	....	1
Child	5	3	8
Dish washer .....	....	1	1
Domestic	2	8	10
Factory worker	1	....	1
Hairdresser .....	..	2	2
Housewife	58	121	179
Laundry worker	1	1	2
Laboratory technician .....	.	1	1
Manager (Department Store)	1	....	1
Matron (Girls' Dormitory)	1	....	1
Musician	1	....	1
Nurse (Graduate)	6	5	11
Nurse (Student)	2	....	2
Nursing aide	1	....	1
Receptionist	1	....	1
Religious .....	....	4	4
Retired .....	....	1	1
Sales clerk	2	6	8
Stenographer	7	6	13
Student	9	23	32
Switchboard operator	1	....	1
Teacher	1	2	3
Waitress	2	6	8
Ward Aide .....	....	3	3
	114	218	332

DEPARTMENT OF PUBLIC HEALTH

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
MEN:			
Accountant	2	....	2
Agricultural worker	26	49	75
Army	3	....	3
At home	1	6	7
Attendant (Hospital)	1	1	2
Baggage man C.N.R.	1	....	1
Barber .....	....	3	3
Blacksmith .....	....	1	1
Bricklayer	1	1	2
Butcher	1	....	1
Butter maker	1	....	1
Carpenter	1	3	4
Child .....	....	5	5
Chemist .....	....	1	1
Clerical worker	5	9	14
Cook .....	....	2	2
Detective sergeant, city police	1	....	1
Dry cleaner	1	....	1
Elevator operator	1	....	1
Electrician	1	....	1
Engineer, civil	1	....	1
Fireman .....	....	1	1
Furniture dealer	1	....	1
Grocer	1	....	1
Grain buyer .....	....	2	2
Gunsmith	1	....	1
Horticulturalist	1	....	1
Hotel employee .....	....	1	1
Janitor .....	....	1	1
Labourer	12	26	38
Laboratory technician	2	1	3
Mechanic, motor	3	2	5
Mechanic, dental	1	....	1
Mechanic, typewriter	2	....	2
Miner	4	5	9
Mink Rancher .....	....	1	1
Merchant	2	....	2
Manager, oil company	1	....	1
Painter	1	....	1
Plasterer	1	....	1
Postal employee	1	....	1
Plumber .....	....	1	1
Printer .....	....	1	1
Pool room operator .....	....	1	1
Real estate agent	1	....	1
Race horse owner .....	....	1	1
Retired .....	....	9	9
Sales clerk	3	....	3
Service station attendant	1	....	1
Salesman	1	4	5
Seaman, merchant navy	1	....	1
Student	8	18	26
Steward .....	....	2	2
Taxi driver	1	....	1
Tailor .....	....	1	1
Trucker	3	2	5
Trapper .....	....	1	1
Telegrapher .....	....	1	1
Waiter .....	....	1	1
	<hr/> 101 <hr/>	<hr/> 164 <hr/>	<hr/> 265 <hr/>

*RESIDENCE OF DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
CITIES:			
Calgary	71	1	72
Drumheller	2	....	2
Edmonton	16	140	156
Lethbridge	9	....	9
Medicine Hat	6	....	6
Red Deer	6	....	6
Wetaskiwin	2	....	2
	<u>112</u>	<u>141</u>	<u>253</u>
TOWNS:			
Banff	1	....	1
Blairmore	1	....	1
Camrose .....	....	1	1
Castor .....	....	1	1
Coleman	1	....	1
Daysland .....	....	1	1
Edson	1	2	3
Innisfail	1	....	1
Lacombe	1	2	3
Leduc .....	....	1	1
Lloydminster	2	....	2
Macleod	3	....	3
Nanton	1	....	1
Okotoks	1	....	1
Olds	2	....	2
Peace River	1	1	2
Pincher Creek	2	....	2
Ponoka	1	1	2
Redcliff	2	....	2
Rocky Mountain House	2	....	2
Stettler	1	1	2
Taber	1	....	1
Three Hills	2	....	2
Vegreville	1	....	1
Vermilion .....	....	1	1
Wainwright .....	....	2	2
	<u>28</u>	<u>14</u>	<u>42</u>
VILLAGES:			
Alliance	1	....	1
Andrew	1	....	1
Bashaw	1	....	1
Bentley	1	....	1
Black Diamond	1	....	1
Bowness	1	....	1
Champion	1	....	1
Consort	1	....	1
Duchess	1	....	1
Empress	1	....	1
High Prairie	1	....	1
Killam .....	....	1	1
Kitscoty .....	....	1	1
Lac La Biche .....	....	1	1
Lamont .....	....	1	1
Lougheed .....	....	1	1
Oyen	1	....	1
Viking .....	....	1	1
Waskatenau .....	....	1	1
	<u>12</u>	<u>7</u>	<u>19</u>

ENLARGED MUNICIPAL DISTRICTS:

No.	Central Alberta Sanatorium	Edmonton Sanatoria	Total
2	2	....	2
9	1	....	1
30	1	....	1
32	1	....	1
43	2	....	2
44	1	....	1
45	1	....	1
48	1	....	1
49	1	....	1
52 .....	....	2	2
55	3	....	3
57	3	....	3
61	1	4	5
62 .....	....	4	4
63	1	8	9
64	5	1	6
66	5	2	7
67 .....	....	2	2
71 .....	....	3	3
72 .....	....	3	3
73	1	3	4
74	1	3	4
75	1	3	4
81	2	12	14
82	1	4	5
83 .....	....	3	3
84 .....	....	1	1
86 .....	....	8	8
87 .....	....	1	1
88 .....	....	2	2
89 .....	....	6	6
90	1	5	6
91 .....	....	3	3
92 .....	....	6	6
93 .....	....	7	7
94 .....	....	1	1
103 .....	....	1	1
106 .....	....	3	3
127	1	15	16
135 .....	....	4	4
136 .....	....	3	3
	<u>37</u>	<u>123</u>	<u>160</u>

LOCAL IMPROVEMENT DISTRICTS:

No.			
3	1	....	1
10	2	....	2
11	1	....	1
15	4	1	5
28	2	....	2
42	6	1	7
65	1	....	1
76 .....	....	1	1
78 .....	....	2	2
79 .....	....	2	2
80 .....	....	2	2
85 .....	....	1	1
95 .....	....	7	7
101 .....	....	5	5
102 .....	....	16	16
107 .....	....	3	3
109 .....	....	4	4
122 .....	....	2	2
124	1	12	13
125 .....	....	3	3
128 .....	....	3	3
129 .....	....	1	1
130	1	1	2
131 .....	....	1	1
132 .....	....	3	3
139 .....	....	2	2
143	1	20	21
146 .....	....	4	4
147	1	....	1
Special Areas	1	....	1
	<u>22</u>	<u>97</u>	<u>119</u>
Non-residents	<u>4</u>	<u>....</u>	<u>4</u>

SUMMARY:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Cities	112	141	253
Towns	28	14	42
Villages	12	7	19
Enlarged Municipal Districts	37	123	160
Local Improvement Districts	22	97	119
Non-residents	4	....	4
	<hr/> 215	<hr/> 382	<hr/> 597

*RELIGION:

Anglican	30	37	67
Apostolic .....	..	3	3
Baptist	6	10	16
Buddist .....	....	1	1
Christian Reformed .....	....	1	1
Evangelical .....	....	1	1
German Reformed	1	....	1
Greek Catholic	4	14	18
Greek Orthodox	4	27	31
Hebrew	1	1	2
Jehovah Witness .....	....	1	1
Latter Day Saints	3	....	3
Lutheran	18	38	56
Mennonite	1	....	1
Methodist	1	....	1
Pentecostal	3	2	5
Presbyterian	13	16	29
Roman Catholic	45	148	193
Seventh Day Adventist	2	1	3
United Church	59	81	140
Undenominational (Protestant)	20	....	20
Unknown	4	..	4
	<hr/> 215	<hr/> 382	<hr/> 597

*AGE ON ADMISSION:

From 1 to 9 years	7	13	20
From 10 to 14 years	7	15	22
From 15 to 19 years	14	47	61
From 20 to 29 years	81	122	203
From 30 to 39 years	48	55	103
From 40 to 49 years	25	56	81
From 50 to 59 years	16	43	59
From 60 to 69 years	12	22	34
70 years and over	5	9	14
	<hr/> 215	<hr/> 382	<hr/> 597

*NATIVITY:

Alberta	108	208	316
Canada (other Provinces)	40	40	80
Austria	2	15	17
Belgium	1	2	3
China	1	3	4
Czechoslovakia	3	3	6
Denmark	1	1	2
East Indies	1	....	1
England	11	14	25
Finland .....	....	1	1
France	2	2	4
Germany	1	4	5
Holland	1	....	1
Hungary	2	....	2
Iceland	1	....	1
Ireland	2	4	6
Isle of Man .....	....	1	1
Italy .....	....	2	2
Japan	1	....	1
Lithuania	1	....	1
Malta .....	....	1	1
Norway .....	....	8	8
Poland	8	19	27
Roumania .....	....	2	2
Russia	1	4	5
Scotland	8	9	17
Sweden	3	6	9
Switzerland	1	3	4
Turkey	1	....	1
United States of America	13	25	38
Ukraine .....	....	3	3
Yugoslavia	1	2	3
	<hr/> 215	<hr/> 382	<hr/> 597

*RESIDENCE IN ALBERTA:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Born in Alberta	106	208	314
1 year or less	3	5	8
1 to 5 years	21	18	39
6 to 9 years	7	10	17
10 to 14 years	5	8	13
15 to 19 years	11	21	32
20 to 30 years	30	52	82
30 years or more	32	60	92
	<hr/> 215	<hr/> 382	<hr/> 597

*RACIAL ORIGIN:

Austrian	1	8	9
Belgian .....	....	2	2
Bohemian .....	....	1	1
Chinese	2	3	5
Czechoslovakian	3	4	7
Danish	2	1	3
Dutch	9	3	12
English	41	47	88
Finnish	2	1	3
Flemish	1	....	1
French	5	22	27
French Canadian	7	1	8
German	15	17	32
Greek	1	....	1
Hungarian	3	1	4
Icelandic	2	....	2
Indian	1	1	2
Irish	33	28	61
Italian .....	....	2	2
Japanese	1	....	1
Jewish	1	1	2
Lithuanian	1	....	1
Manx .....	....	1	1
Metis	10	79	89
Norwegian	5	25	30
Polish	12	20	32
Roumanian	1	2	3
Russian	2	9	11
Scottish	31	37	68
Swedish	7	7	14
Ukrainian	10	44	54
Welsh	2	2	4
Yugoslavian	1	3	4
Unknown	3	10	13
	<hr/> 215	<hr/> 382	<hr/> 597

*Tables include figures for discharges from General Section of Hospitals.

LENGTH OF STAY IN SANATORIUM OF 597 DISCHARGED PATIENTS:

DEATHS:

Number in Sanatorium under 31 days	4	22	26
Number of patient days	60	315	375
Average number patient days	15	14.3	14.4
Number in Sanatorium 31 or more days	18	22	40
Number of patient days	17,117	9,892	27,009
Average number patient days	950.9	449.6	675.2

DISCHARGES:

Number in Sanatorium under 31 days	17	93	110
Number of patient days	342	1,294	1,636
Average number patient days	20.1	13.9	14.9
Number in Sanatorium 31 days or more	176	245	421
Number of patient days	78,393	52,985	131,378
Average number patient days	445.4	216.3	312.1
Total number deaths and discharges	215	382	597
Total patient days	95,912	64,486	160,398
Average number patient days	446.1	168.8	268.7

		Others		
No. non-pulmonary admissions(individual)	29	70	8	107
No. non-pulmonary patient days (calendar)	3,329	7,295	461	11,085
Average patient days, non-pulmonary	107.4	104.2	57.5	103.6

DONATIONS AND ENTERTAINMENT

CENTRAL ALBERTA SANATORIUM

ENTERTAINMENT—Canadian Red Cross Society, Christmas Party, Weekly showing of 16 mm. films; Elks Concert Party, Concert; St. Michael's and All Angels' Church Choir, Christmas music; Young People's Society, St. Stephen's Church, Calgary, Concert; T. Eaton Co. (Western) Ltd., Calgary, Santa Claus for Children's Ward; Picture shows weekly; Cribbage Tournament; Billiard Tournament; Hallowe'en Party.

DONATIONS—The following donated Toys and Gifts for the Children's Ward: Mrs. Mary McGrandle (Calgary), Sharon, Karen and Marion Nelson (Morrin), Acacia Chapter No. 56, Order of Eastern Star (Calgary), First Bowness Brownie Pack (Bowness), Kinette Club (Calgary), Clover Leaf Rebekah Lodge No. 37 (Vulcan), Karen Reith (Calgary), Stettler Women's Institute (Stettler), Sundre School Children (Sundre), Sunshine Social Club (Vulcan), Bonus Amicus Explorer Group, Hillhurst Church (Calgary); Foothills Philatelic Exchange, Calgary, Stamps; Masonic Order, Calgary, Candy and Oranges; Children's Hospital Aid Society, Calgary, Viewmaster Projector and Screen, Sweaters; Alberta Tuberculosis Association, Books for Student Nurses' Library, Radio and Record Player for Children's Ward; Evening Auxiliary, Hillhurst Church, Calgary, Gifts; MacLeod Bros., Calgary, Calgary Herald (Christmas Eve Edition); Canadian Legion Command Alberta Command No. 238, Gifts; R. E. Slessor, Vancouver, B.C., Holly for Children's Ward; St. John's Catholic Women's League, Calgary, Gifts; Eaton's Legion Christmas Tree, Gifts; Mrs. J. H. Woods, Calgary, Cash for gifts and donations to Chapel; Samaritan Club, Calgary, Donation for Chapel; Ladies' Auxiliary, Canadian Legion, Three Hills, Cash; A. Hendry, Calgary, Cash; Hudson's Bay Company, Calgary, Christmas decorations; Diocesan Board, Anglican W.A., Calgary, Gifts; Lakeside Social Workers, Lacombe, Games; Nursing Mission, Lethbridge, Gifts; Simmons Limited, Winnipeg, Man., Candy; Spruce View Ladies' Community Club, Gifts; McGavin Limited, Calgary, Christmas cake; J. W. Hughes, Kelowna, B.C., and Rotary Club, Calgary, Flowers; Mrs. Nellie Stewart Memorial Fund, Cash for Children's Ward; Stampeder Football Club, Programs; Kinette Club, Calgary, Cash for Occupational Therapy Department; Mrs. J. R. M. Martin, Chatham, Ont., Cash for books for library.

EDMONTON GENERAL HOSPITAL

ENTERTAINMENT—Cribbage Tournament, once per month; Picture Show, once per week; Card Party, once per month; Valentine Party; Easter Party; Hallowe'en Party; Christmas Concert; Church Choirs.

DONATIONS—Magazine Subscriptions; I.O.D.E., Patients' Recreation Fund; Alberta Tuberculosis Association, Library Books; Dr. McPherson, Library Books; Junior Chamber of Commerce, Gifts; Joyeux Noel Club, Gifts; Ed Berg, Yellowknife, N.W.T., Gifts; Fort Edmonton Chapter I.O.D.E., Gifts; Provincial Command, Canadian Legion Ladies' Auxiliary, Gifts; Catholic Women's Auxiliary, Gifts once each month; Rene Flowers, Gifts each month; Junior Chamber of Commerce Ladies, Cookies and Candy once each month.

ROYAL ALEXANDRA HOSPITAL

ENTERTAINMENT—Picture Show, every third week; 3 Bingo Parties; Valentine Party; Easter Party; Hallowe'en Party; Christmas Party.

DONATIONS—R.A.H. Women's Auxiliary, Prizes for Bingo, fruit and candy; Ukrainian Benevolent Society, Magazines; Winodausis Society, Flowers; Salvation Army, Fruit and Candy.

Division of Mental Health

RANDALL R. MACLEAN, M.D., *Director*

Separate reports are submitted for each branch of the Division, namely:

- Eugenics Board.
- Provincial Guidance Clinics.
- Provincial Mental Hospital, Ponoka.
- Provincial Mental Institute, Edmonton.
- Provincial Auxiliary Mental Hospital, Claresholm.
- Provincial Auxiliary Mental Hospital, Raymond.
- Provincial Training School for Defectives, Red Deer.

Referring to the various Institutions in the Division, the total patient population in them on January 1, 1949, was 3,131. On December 1, 1949, the patient population was 3,171. This was therefore a gain of some 40 patients during the year.

The Provincial Mental Hospital, Ponoka, continued to serve as the chief admission hospital and during the year 587 patients (301 males and 286 female) were admitted. This was some 21 more than the previous year.

The Provincial Mental Institute admitted 260 patients (132 male and 128 female) during the year. This number was within one of the previous year.

Both the Provincial Mental Hospital, Ponoka, and the Provincial Mental Institute, Edmonton, give extensive active treatment to all cases where this is indicated.

The Provincial Training School, Red Deer, admitted 40 children (16 male and 24 female) during the year. This was four more than the previous year. Extensive renovations interfered with the movement of the School population and the Training Programme. Toward the end of the year, however, several new buildings and the Recreation Hall came into use and matters improved thereafter. The former Medical Superintendent, Dr. D. L. McCullough, retired during the year due to ill-health. He had given many years of faithful and efficient service to the Mental Health Division, both at the Provincial Mental Hospital, Ponoka, and at the Provincial Training School. He was replaced by Dr. L. J. le Vann, who received his training and experience in England and Canada.

During the year some 40 patients were involved in transfers and a number were discharged from the Mental Hospitals and accepted at "Rosehaven" in Camrose.

Work went ahead during 1949 on the construction of the new Psychiatric Ward at the University of Alberta Hospital, Edmonton. This ward may be read for occupancy in 1951. No work has as yet been done by the Calgary General Hospital on the Psychiatric Ward, for which plans were drawn up some years ago.

Again in 1949 a considerable amount of new building construction took place. A new Occupational Therapy Building was erected at the Provincial Mental Hospital, Ponoka. The small ward for

some 15 patients was completed at the Provincial Auxiliary Mental Hospital, Raymond. Work went ahead on the Tuberculosis Ward at the Provincial Mental Institute, Edmonton, and a new Occupational Therapy Building was also built at the latter Institution. Three new dormitories were opened at the Red Deer Training School, also a Recreation Hall. The renovations to the Administration Building were almost completed.

The services of the Provincial Guidance Clinics were again expanded, and included in the itinerary were some 6-8 points in the Peace River area. This re-inauguration of the latter service was greatly appreciated by the many interested parties and authorities in the territory involved. The Clinic Staffs again participated in Public Education activities, including lectures, talks, radio work, round table discussions and institutes.

In respect to staff conditions, there was some improvement in availability of staff generally, probably more noticeable in connection with female staffs, trained and untrained.

Five meetings of the Eugenics Board were held at the Provincial Mental Hospital, Ponoka, and two at the Provincial Training School, Red Deer. One meeting was held at the Provincial Guidance Clinic in Edmonton: A total of 116 cases were presented for the Board's consideration—six of which were deferred for future consideration. Of the 109 cases passed by the Board, 52 were males and 57 females. The total number of cases operated upon to December the 31st, 1949, was 1,175 (475 male and 700 female). The operations were performed by duly appointed Honorary Physicians, assisted by the medical staff of the Provincial Mental Hospital, Ponoka.

TABULATED SUMMARY—INSTITUTIONS: MOVEMENT OF PATIENTS

Hospital	Patients in Hosp. Jan. 1, 1948			Admissions			Discharges			Deaths			Patients in Hosp. Dec. 31, 1949		
	M.	F.	T.										M.	F.	T.
Ponoka	809	541	1350	301	286	587	232	250	482	39	24	63	839	555	1394
Oliver	966	305	1271	132	128	260	98	101	199	45	9	54	945	328	1273
Red Deer	165	133	298	16	24	40	16	21	37	6	2	8	159	134	293
Claresholm ....	....	99	99	....	8	8	....	8	8	....	1	1	....	98	98
Raymond .....	....	113	113	....	4	4	....	....	....	....	4	4	....	113	113
Total	1940	1191	3131	449	450	899	346	380	726	90	40	139	1943	1228	3171

PROVINCIAL MENTAL HOSPITAL, PONOKA

Patient Population Changes.

On January 1st, 1949, the number of patients in residence was 1,350, of whom 809 were male and 541 female. On December 31st, 1949, there were in residence 1,394 patients, of whom 839 were male and 555 female. There were 23 patients transferred to other mental institutions in the Province and 25 patients received from these institutions. There was an overall increase in patient population of 44.

Admission of Patients.

Exclusive of transfers from other Provincial mental institutions, 562 were admitted, there being an increase of 17 over the previous year. Of those admitted, 294 were male and 268 female. There were 117 patients admitted voluntarily, 144 by medical certificates, 296 by Warrant of the Attorney General, and 5 under The Mental

Defectives Act. As in 1948, approximately 13% of the admissions had one of the Senile Psychoses.

Twenty-nine cases of Neurosyphilis were admitted, of whom 17 were psychotic. There was a decided decrease in the number referred by the Division of Social Hygiene. The decrease noted in 1948 in the number of Neurosyphilitics admitted continued in 1949. There was a decrease in the number of Schizophrenics, and an increase in the number in the Manic-Depressive group. The other diagnostic categories showed only minor variations. Details are set forth in Table 3.

Separation of Patients.

Separation of patients for the year total 545, and of these 271 were male and 274 female. There were 459 discharged and there were 63 deaths. Twenty-three were transferred to other Provincial mental institutions.

Accidents and Elopements.

Among the patients there were 16 fractures, 10 of these being men and 6 of women.

There were 2 suicidal deaths.

There were 21 elopements during the year, all being men, the majority of whom were returned either by the staff of the hospital or the police authorities.

General Health.

The health of the patients was generally good. There were no epidemics. The Tuberculosis preventive programme was continued with no increase in the number of those afflicted with this disease. All active cases were isolated. The continued need for more adequate facilities for the isolation and treatment of Tuberculosis was apparent. The nutritional state of most patients was excellent, and specific diets were provided for a great number. Patients were kept outdoors as much as possible.

Clinical Work.

The medical staff was augmented, and the treatment programme was very active. All patients were examined on admission and as frequently thereafter as seemed necessary. All appropriate laboratory procedures were performed, and all means utilized to ascertain the physical state of the patients.

Psychiatric examinations were as extensive as possible, with the staff available, and treatments were instituted expeditiously with new patients, and continued with those under prolonged care.

In general, the treatment policy was to make available to the patients throughout the hospital all recognized therapeutic agents and procedures. The shock therapies—electro and insulin—were extensively utilized, and did much to make the patients accessible to interviews and other forms of treatment. Malarial fever therapy was used, when indicated, although the need for this was less. Hydrotherapy and physiotherapy was extensively employed. A limited number of pre-frontal leucotomies were performed.

Occupational Therapy.

This Department maintained an active programme with special emphasis on new patients. Classes were also operated for those under prolonged care, who were sufficiently well enough to attend.

New facilities for this Department were constructed during the year. The new building was essentially completed, but not equipped, for use at the year's end. Many of the articles produced were sold to the patients who had made them, either to be taken home by them or to be sent to their relatives.

Undergraduate and graduate nurses were given instruction.

The library and canteen continued to be of great value to the patients.

Beauty Parlour.

The value of facilities such as this to women patients has become increasingly evident. All the usual beauty parlour procedures were available to patients. There were 4,000 shampoos given, which serves as an indication of the work done, and it might be added that women of all ages appreciated the opportunity to attend.

New equipment was added during the year, which resulted in increased efficiency.

Recreational Therapy.

Two Recreational Therapists were appointed to the staff. Both men had previously been long experienced in such activities in the armed forces and elsewhere.

A very active programme was organized and maintained to encompass practically all patients. Moving pictures were shown weekly in the large Recreation Hall, and special pictures were shown to small ward groups. Entertainment was provided regularly on all wards. Outdoor activities were arranged during the summer and winter, and included a great variety of sports, many of which were competitive.

During the year, a number of groups from various points in the Province came to the hospital to entertain the patients. For the most part, these groups were sponsored by the Department of Veterans' Affairs and the Provincial Command of the Canadian Legion. Through these visits, many contributed to the welfare of the patients and, incidentally, learned something of the operation of the hospital.

Religious Services.

Clergymen of the major denominations held services during the year. They were well attended and much appreciated. On many occasions, at the request of patients or their relatives, the visiting clergymen have seen individuals privately.

Social Service.

On April 1st, 1949, Mr. Neil C. Crawford, a graduate of the University of Toronto in Social Work, was appointed to the staff as a full-time worker. The need for such has long been realized. A skilled Social Worker can do much in effecting the patient's rehabilitation in the home community.

It must be recognized that many of our patients come from distant places, and if social work is to be done properly the home must be visited. One Social Worker can therefore make but a beginning in this much needed work.

In spite of this, the institution of this Department has been a great help to many patients. In the last five months of the year,

field trips were made for 64 patients. Many interviews were held in the hospital and elsewhere. The addition of a Social Worker to the staff is a great asset.

Dental Services.

A full-time dentist supplied services. All incoming patients were examined and treated when necessary. Replacements were made as required. All patients under continued care were likewise examined and treated.

The following is a summary of the work of this Department:

Patient appointments	2166	Sundry operations: X-rays, Den-	
Operations (all types)	3708	ture impressions and adjust-	
Operations are divided as follows:		ments	337
Examinations, including new		New dentures	55
admissions	1556	Denture repairs	52
Teeth filled	482	Gold inlays	4
Extractions	370	Bridge repairs	4
Prophylaxis	454		
Peridental treatments	394	Total	3708

During the year the dentist also visited the Provincial Auxiliary Hospitals at Claresholm and Raymond.

X-Ray Services.

During the year a complete new installation was made. Much more modern and powerful equipment was obtained and installed. The present X-ray plant is basically capable of handling the needs of the hospital. It is now possible to do the great majority of chest plates on miniature films, resulting in lowered cost and easier storage.

With more intensive treatment, however, the work of this Department has increased. It has functioned very efficiently under the direction of a Nurse-Technician.

The following is a summary of the X-ray procedures carried out during the year:

Chests	2102	Abdomen	28
Dorsal Spine	513	Stomach (Barium)	9
Lumbar Spine	34	Barium (Enema)	5
Cervical Spine	10	Gall Bladder	10
Skull	52	Gall Bladder (Reg.)	11
Nose	1	Intravenous Pyelogram	1
Jaw	3	Dental	10
Ribs	14	Sternum	1
Shoulder	31	Scapula	2
Elbow	13	Sacroccocygeal	1
Wrist	21	Sacroiliac	2
Hand	37	Kidney region	3
Finger	18	Sinuses	3
Pelvis	12	Patella	3
Hip	50	Neck	2
Femur	17	Buttocks	30
Knee	30	Esophagus	4
Humerus	1	Maxilla	1
Leg	5	Arm	9
Ankle	29		
Foot	30	Total	3162
Toes	4		

Laboratory Services.

The Laboratory, under the direction of a technician, has given excellent service. All the common laboratory procedures have been carried out here. Materials for more involved examinations were sent to the Provincial Laboratory and the Department of Biochemistry, University of Alberta. Assistance was given at autopsies. Facilities were provided for the reception and handling of blood from the Canadian Red Cross Blood Donor Service.

Considerable equipment was added to improve the facilities for diagnosis and treatment.

The following is a list of procedures during the year:

Urinalyses	2548
Blood Counts	1533
Blood Chemistry	341
Smears (Blood)	142
Differential Blood Counts	231
C.S.F. Cell Counts	597
Sputum for T.B. Examination	312
Miscellaneous: Gastrics, Vag. Smears	82
Total	5786
Specimens to the Provincial Laboratory:	
C.S.F.	597
Blood Wassermann	650
Blood Chemistry	100
Stool Specimens	150
Cultures	30
Total	1527
Post-mortems (partial and complete).....	20
The Canadian Red Cross Blood Donor Service:	
Amount of whole blood received	33,000 cc.
Returned (unused)	1,500 c.c.

Nurses' Training School.

A very active programme of teaching was maintained. One of the instructress resigned, and she was replaced by Miss N. Leckie, formerly of the staff of this hospital, and more recently of the staff of an Eastern Psychiatric Hospital.

The Assistant Superintendent of Nurses, Miss M. Nelson resigned, and she was replaced by Miss E. A. Kirkham, who is well trained and skilled in General and Psychiatric Nursing. It is considered she was responsible for a definite elevation in nursing standards.

Twenty-three student nurses from this School, 9 post-graduate students, and 31 male attendants were given instruction. Twenty-eight nurses' aide trainees from the School for Nurses' Aides in Calgary, as well as 25 students from the University of Alberta School of Nursing, were given instruction here.

In November, affiliation was completed with the Lamont Public Hospital, Lamont, and the Galt Hospital, Lethbridge, whereby undergraduate students from those Schools could spend eight weeks at this hospital. The first students from both Schools arrived here on November 7th.

Teaching of Medical Students.

Instruction was given at the University of Alberta to junior medical students by the Medical Superintendent. Two medical students acted as undergraduate internes during the summer.

Medical Library.

Substantial purchases of new books were made, and there was some progress in the rehabilitation of the library, which had of necessity deteriorated in the war and immediate post-war years.

Visits to the Hospital.

Visits were made from time to time by Dr. W. W. Cross, the Minister of Health, and by Dr. M. R. Bow, the Deputy Minister of Health. These visits were much appreciated by patients and staff, and the advice and direction given by both was of great value.

The hospital was visited from time to time by distinguished personages from the Province of Alberta and elsewhere. Dr. D. G. McKerracher, Director of Saskatchewan Mental Services, accom-

panied by Drs. F. S. Lawson and A. R. Coulter, Medical Superintendent of the Mental Hospital at North Battleford and Weyburn, respectively, honoured the hospital with a visit.

Dr. R. R. MacLean, the Director of the Division of Mental Health for the Province, maintained his headquarters at the hospital during the year. On a great many occasions his advice was sought by those responsible for the administration. He inspected the hospital at appropriate times and gave valued direction and guidance.

The Eugenics Board acting as a Visiting Committee, inspected the hospital. Careful inquiry was made as to the care and welfare of patients. The buildings and facilities were rigidly scrutinized. The medical staff was given the opportunity to discuss any existing difficulties with the Visiting Committee.

An increasing number of relatives and friends visited the patients, visitors being allowed on every day of the year.

The Eugenics Board.

The Eugenics Board held four meetings at this hospital during the year. Seventy-six patients were presented, of whom 37 were male and 39 female. The cases were presented to the Board by the medical staff of the hospital.

Surgical Services.

Dr. J. W. Richardson and Dr. J. Ross Vant continued to act as honorary surgeons. Whenever called upon they were most co-operative. They carried out the regular procedures, and on many occasions acted as consultants to the medical staff.

Maintenance Department.

A great deal of repair and replacement work was done. The roof of the older Farm Dormitory was re-covered with slated-surface asphalt shingles. The septic tank deck was re-covered with a bonded roof. Twelve residences were reshingled. A new main sewer line was laid from the hospital to the septic tank. Most of the farm buildings were re-painted. Numerous repairs were made to the hospital and other buildings on the grounds.

Fire Protection.

A new and modern fire engine was obtained. Regular practises were held. The new equipment assures a much greater degree of safety.

Business Office.

This Department has functioned satisfactorily as in previous years. There was no decrease in the volume of work. Collections were at a very satisfactory level.

Farm.

The dairy herd was largely replaced with good quality Holstein stock, a proportion of this being registered. The policy laid down should ensure an adequate quantity of wholesome milk. Pork production was good, and adequate for the hospital needs. There was an ample supply of eggs. Chickens and turkeys were supplied to this hospital, and some of the latter to other Provincial institutions.

There was some frost damage, but field crops were average.

Gardens.

There was some early drouth which curtailed early vegetable production, and the late crops were damaged by early frosts. In spite of this, 375,000 pounds of fresh vegetables were delivered to the hospital, and 184,000 pounds were stored for winter use.

Cannery.

There were 21,000 large cans of fruit and vegetables processed, and of these, over 3,000 cans were delivered to other Provincial institutions. The cannery continued to be a valuable acquisition to the hospital.

Dietary Department.

Supervision was maintained by the Dietitian over the food supplied to patients and staff. The Dietitian assisted in the instruction of student nurses and visiting student dietitians.

Housekeeping Department.

Careful attention was given to furnishings and supplies. Condemned material was salvaged and, whenever possible, put to use. Salvaged material was converted into bed-throws, rugs and door mats. An inventory was taken in all departments. Close supervision was maintained during all operations on the wards and elsewhere.

Laundry.

The new laundry was opened in November, and as might be expected, some minor difficulties were encountered. The hospital laundry needs were met, however, and by the end of the year the new laundry was functioning with fair efficiency. The new ironing and pressing room was not completed for use.

Linen Room.

This Department functioned to a high degree of efficiency, in spite of rather cramped quarters. Linen was sorted, mended and distributed to the wards. Approximately 121,000 pieces of linen passed through this Department each month.

Tailor Shop.

This Department supplied the hospital needs with a great many articles of clothing. It was not possible to secure the services of an assistant tailor, but efforts for such continue.

Sewing Room.

Approximately 22,000 articles of clothing were manufactured in the sewing room, these being for the most part, clothes for female patients, nurses' uniforms, window draperies, and a diversity of other articles.

Print Shop.

Most of the printing needs of the hospital were met, and considerable work was done for other branches of the Department. The output was of excellent quality.

Department of Chief Engineer.

Throughout the year, adequate heat, light and water were supplied, and repairs received proper attention. There was a very satisfactory degree of co-operation between the personnel of this

Department and those of the Public Health Department at the hospital.

Conclusion.

Efforts during the year were directed toward maintaining the previously existing standards and, where possible, improving them. That part of the staff responsible for nursing services was increased in keeping with policies laid down by the Department. Full emphasis was placed on treatment services, with the aim of returning our patients to a productive life as citizens of the Province.

TABLE 1
MOVEMENT OF PATIENT POPULATION DURING 1949

	Male	Female	Total	Male	Female	Total
In residence as of December 31st, 1948				809	541	1350
On leave or otherwise absent				12	8	20
Admissions:						
First Admissions:						
(a) Voluntary	27	41	68			
(b) Certificates	46	55	101			
(c) Warrant	147	76	223			
(d) M.D. Act	1	3	4			
	—	—	—	221	175	396
Re-Admissions:						
(a) Voluntary	19	30	49			
(b) Certificates	15	28	43			
(c) Warrant	39	34	73			
(d) M.D. Act .....	...	1	1			
	—	—	—	73	93	166
Transfers in	7	18	25			
	—	—	—	7	18	25
Total Admissions				1122	835	1957
Separations:						
Discharges:						
As recovered	56	61	117			
As improved	78	105	183			
As unchanged	44	37	81			
Without psychoses	50	28	78			
Transfers out	4	39	23			
Deaths	39	24	63			
	—	—	—	271	274	545
Totals				851	561	1412
In residence as of DeDcember 31, 1949				839	555	1394
On leave or otherwise absent				12	6	18

TABLE No. 2
RESIDENT PATIENT POPULATION BY PSYCHOSES, DECEMBER 31, 1949

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis	53	12	65
02	Psychoses with other forms of syphilis of the central nervous system:			
021	Meningo-vascular type	7	....	7
022	With intracranial gumma .....	....	....	....
023	Other types (Taboparesis)	3	1	4
03	Psychoses with epidemic encephalitis	1	2	3
04	Psychoses with other infectious diseases:			
044	With other infectious disease	1	....	1
045	Post-infectious psychoses	1	....	1
05	Aycoholic psychoses:			
051	Pathological intoxication .....	....	....	....
052	Delirium tremens	1	....	1
053	Korsakow's psychoses	3	....	3
054	Acute hallucinosis	7	1	8
055	Other types	1	1	2
06	Psychoses due to drugs or other exogenous poisons	1	....	1
07	Traumatic psychoses	1	....	1
071	Traumatic delirium .....	....	2	2
072	Post-traumatic personality disorders	2	....	2
073	Post-traumatic mental deterioration	3	....	3
08	Psychoses with cerebral arteriosclerosis	30	10	40
09	Psychoses with other disturbances of circulation	3	1	4
10	Psychoses with convulsive disorders	2	....	2
101	Epileptic deterioration	11	2	13
102	Epileptic clouded states	6	2	8
103	Epileptic, other types	5	4	9
11	Senile psychoses:			
111	Simple deterioration	4	8	12
114	Depressed and agitated	5	2	7
115	Paranoid types .....	....	2	2
12	Involucional melancholia:			
121	Melancholia	7	15	22
122	Paranoid types	1	....	1
13	Psychoses due to other metabolic, etc., diseases:			
135	With other somatic diseases (specify)	2	1	3
14	Due to new growth .....	....	1	1
15	Psychoses associated with organic changes:			
151	With multiple sclerosis	4	....	4
152	With paralysis agitans	2	1	3
153	With Huntington's chorea	4	....	4
154	With other brain or nervous diseases	1	1	2
16	Psychoneuroses:			
161	Hysteria .....	....	1	1
162	Psychasthenia or compulsive states .....	....	....	....
163	Neurasthenia .....	....	1	1
164	Hypochondriasis	1	1	2
165	Reactive depressions .....	....	2	2
166	Anxiety state	2	....	2
17	Manic-depressive psychoses:			
171	Manic type	24	31	55
172	Depressive type	8	21	29
173	Circular type .....	....	2	2
174	Mixed type .....	....	....	....
175	Perplexed type .....	....	....	....
176	Stuporous type .....	....	....	....
177	Other types .....	....	4	4
18	Dementia Praecox (Schizophrenia):			
181	Simple type	10	13	23
182	Hebephrenic type	21	16	37
183	Catatonic type	252	195	447
184	Paranoid type	158	71	229
185	Other types	2	1	3
19	Paranoia and paranoid conditions	5	2	7
191	Paranoia	11	2	13
192	Paranoid conditions	41	29	70
20	Psychoses with psychopathic personality	4	1	5
21	Psychoses with mental deficiency	57	38	95
22	Undiagnosed psychoses	6	18	24
23	Without psychoses	3	2	5
231	Epilepsy:			
2311	Epilepsy only	7	5	12
2312	Epilepsy with mental deficiency	4	9	13
232	Alcoholism	1	....	1
233	Drug addiction .....	....	....	....
234	Mental deficiency	43	20	63
2341	Idiot .....	....	....	....
2342	Imbecile	1	....	1
2343	Moron .....	....	1	1
2344	Unspecified .....	....	1	1
235	Disorders of personality due to epidemic encephalitis.....	1	....	1
236	Psychopathic personality	3	....	3
241	Tabes Dorsalis	1	....	1
242	Neurosyphilis	2	....	2
24	Primary behaviour disorders .....	....	1	1
Totals.....		839	555	1394

TABLE No. 3

PSYCHOSES OF ADMISSIONS, RE-ADMISSIONS AND TRANSFERS IN

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis	7	2	9
02	Psychoses with other forms of syphilis of the central nervous system:			
023	Other types (Taboparesis)	6	2	2
03	Psychoses with epidemic encephalitis .....	....	....	....
04	Psychoses with infectious diseases .....	....	....	....
05	Alcoholic psychoses:			
051	Pathological intoxication	1	....	1
052	Delirium tremens	2	2	4
053	Korsakow's psychosis	5	....	5
054	Acute hallucinosis	5	1	6
055	Other types	3	1	4
06	With drugs, other exogenous poisons:			
064	Due to other drugs (specify)	1	1	2
07	Traumatic psychoses:			
071	Traumatic delirium	1	....	1
074	Other types (specify)	1	....	1
08	Psychoses with cerebral arteriosclerosis	24	8	32
09	Psychoses with other disturbances of circulation:			
093	Other types (specify)	1	....	1
10	Psychoses with convulsive disorders:			
101	Epileptic deterioration	8	2	10
102	Epileptic clouded states	1	....	1
103	Other epileptic types .....	....	1	1
11	Senile psychoses:			
111	Simple deterioration	17	10	27
114	Depressed and agitated .....	....	5	5
115	Paranoid types	4	5	9
12	Involucional psychoses:			
121	Melancholia	4	9	13
123	Other types (specify) .....	....	1	1
13	Psychoses due to other metabolic, etc., diseases:			
135	With other somatic diseases (specify)	2	2	4
14	Due to new growth .....	....	....	....
15	Psychoses associated with organic changes:			
152	With paralysis agitans	1	1	2
153	With Huntington's Chorea	1	....	1
16	Psychoneuroses	2	2	4
161	Hysteria .....	....	1	1
162	Psychasthenia .....	....	4	4
163	Neurasthenia .....	....	4	4
164	Hypochondriasis .....	....	1	1
165	Reactive depression	6	7	13
166	Anxiety state	3	1	4
167	Mixed psychoneurosis .....	....	5	5
17	Manic-depressive psychoses:			
171	Manic type	13	23	36
172	Depressive type	10	26	36
173	Circular type .....	....	5	5
174	Mixed type .....	....	1	1
177	Other types	3	1	4
18	Dementia praecox (Schizophrenia):			
181	Simple type	2	3	5
182	Hebephrenic type .....	....	....	....
183	Catatonic type	67	65	132
184	Paranoid type	15	6	21
185	Other types	2	2	4
19	Paranoia and paranoid conditions:			
192	Paranoid conditions	14	22	36
20	Psychoses with psychopathic personality	1	....	1
21	Psychoses with mental deficiency	2	4	6
22	Undiagnosed psychoses	9	4	13
23	Without psychoses	8	6	14
231	Epilepsy:			
2311	Epilepsy only	2	3	5
2312	Epilepsy with mental deficiency	1	2	3
232	Alcoholism	12	1	13
234	Mental deficiency	2	1	3
2341	Idiot .....	....	2	2
2342	Imbecile	8	13	21
2343	Moron	2	10	12
2344	Unspecified	7	2	9
236	Psychopathic personality	2	1	3
2361	With pathological sexuality	1	....	1
241	Tabes Dorsalis	3	....	3
242	Neurosyphilis	6	3	9
24	Primary behaviour disorders	2	....	2
241	Simple adult maladjustment	1	2	3
Totals		301	286	587

TABLE No. 4
NATIVITY OF FIRST ADMISSIONS DURING 1949

Nativities	Male	Female	Total	Nativities	Male	Female	Total
Australia	1	..	1	Japan .....	....	1	1
Austria	3	1	4	Jugoslavia	1	....	1
Belgium	1	....	1	Lithuania .....	....	3	3
Canada	120	104	224	Norway	8	2	10
China	3	....	3	Poland	5	3	8
Czechoslovakia	1	1	2	Roumania	1	1	2
Denmark	4	1	5	Russia	5	3	8
England	16	14	30	Scotland	7	9	16
Finland	1	....	1	Sweden	2	....	2
France	1	1	2	Switzerland	2	1	3
Germany	2	2	4	United States	23	21	44
Holland	1	....	1	Other Countries	4	2	6
Hungary .....	....	4	4	Not given	2	....	2
Ireland	5	1	6				
Italy	2	....	2	Totals	221	175	396

TABLE No. 5
AGES OF PATIENTS ADMITTED DURING 1949

	M.	F.	T.		M.	F.	T.
Under 15 years .....	....	4	4	50 to 54 years	17	11	28
15 to 19 years	15	16	31	55 to 59 years	19	7	26
20 to 24 years	25	5	30	60 to 64 years	12	6	18
25 to 29 years	22	10	41	65 to 69 years	12	6	18
30 to 34 years	19	22	41	70 years and over	31	19	50
35 to 39 years	10	31	41				
40 to 44 years	16	16	32	Totals	221	175	396
45 to 49 years	23	13	36				

TABLE No. 6
DISCHARGES BY PSYCHOSES AND CONDITION ON DISCHARGE

	Rec. M. F.	Imp. M. F.	Unimp. M. F.	Totals M. F. T.
01. Psychoses with syphilitic meningo- encephalitis (general paresis) .....	....	1 1	....	1 1 2
02. Psychoses with other forms of syphilis of the central nervous system: 023 Other types (Taboparesis) .....	....	4 1	3	7 1 8
03. Psychoses with epidemic encephalitis..	....	....	....	....
04. Psychoses with other infectious diseases:	....	....	....	....
05. Alcoholic psychosis:				
051 Pathological intoxication .....	....	....	....	....
052 Delirium tremens	1 2	2 ....	....	3 2 5
053 Korsakow's psychoses .....	....	....	....	....
054 Acute hallucinosis	6	3 2	1	10 2 12
055 Other types .....	....	....	....	....
06. Due to drugs, other poisons:				
061 Due to metals .....	....	....	....	....
062 Due to gases .....	....	....	....	....
063 Due to opium and derivatives	1 ....	....	....	1
064 Due to other drugs .....	.... 1	....	....	.... 1 1
07. Traumatic psychoses:				
071 Traumatic delirium .....	....	1 ....	....	1 1
08. Psychoses with cerebral arteriosclerosis	....	3 2	6 3	9 5 14
09. Psychoses with other disturbances of circulation .....	....	....	....	....
10. Psychoses with convulsive disorders:				
101 Epileptic deterioration .....	....	....	....	....
102 Epileptic clouded states	2 1	2 4	....	4 5 9
103 Other epileptic types .....	....	....	1	1 1
11. Senile Psychoses:				
111 Simple deterioration .....	....	....	10 1	10 1 11
112 Presbyophrenic type .....	....	....	....	....
113 Delirious and confused types .....	....	....	....	....
114 Depressed and agitated types ....	....	....	1 3	1 3 4
115 Paranoid types .....	....	....	3 3	3 3 6
12. Involutional psychoses:				
121 Melancholia	2	3 10	.... 3	5 13 18
122 Paranoid types .....	....	....	.... 1	.... 1 1
13. Due to other metabolic, etc., diseases:				
131 With diseases of endocrine glands	....	....	....	....
132 Exhaustion delirium .....	....	....	....	....
133 Alzheimer's disease .....	....	....	....	....
134 With pellagra .....	....	....	.... 1	.... 1 1
135 With other somatic diseases .....	....	....	....	....
14. Due to new growth .....	....	....	....	....
15. Associated with organic changes:				
154 With other brain or nervous diseases	1	1 1	1	3 1 4

TABLE No. 6—Continued

		Reg.		Imp.		Unimp.		Totals		
		M.	F.	M.	F.	M.	F.	M.	F.	T.
16.	Psychoneuroses:									
	161 Hysteria .....	....	1	....	2	....	....	....	3	3
	162 Psychasthenia or compulsive states .....	....	....	....	2	....	3	....	5	5
	163 Neurasthenia .....	....	....	....	1	....	....	....	1	1
	164 Hypochondriasis .....	....	....	....	....	....	....	....	....	....
	165 Reactive depression	1	1	3	6	....	2	4	9	13
	166 Anxiety state .....	....	....	1	2	....	....	1	2	3
	167 Mixed psychoneurosis .....	....	....	....	5	....	1	....	6	6
17	Manic-depressive psychoses:									
	171 Manic type	8	15	4	3	....	....	12	18	30
	172 Depressive type	4	14	6	17	2	2	12	33	45
	173 Circular type .....	....	....	....	2	....	....	....	2	2
	174 Mixed type .....	....	....	....	1	....	....	....	1	1
	175 Perplexed type .....	....	....	....	....	....	....	....	....	....
	176 Stuporous type .....	....	....	....	....	....	....	....	....	....
	177 Other types	1	2	5	1	....	....	6	3	9
18.	Schizophrenia:									
	181 Simple type .....	....	....	1	....	....	....	2	2	4
	182 Hebephrenic type .....	....	....	....	....	....	1	....	1	1
	183 Catatonic type	25	23	23	31	8	6	56	60	116
	184 Paranoid type	1	....	4	3	6	1	11	4	15
	185 Other types .....	....	....	2	1	....	1	2	2	4
19.	Paranoia and paratoid conditions:									
	192 Paranoid conditions .....	....	....	4	5	....	3	4	8	12
20.	Psychoses with psychopathic personality	1	....	....	....	1	....	2	....	2
21.	Psychoses with mental deficiency.....	1	....	....	....	....	1	1	1	2
22.	Undiagnosed psychoses	1	1	5	1	....	....	6	2	8
23.	Without psychoses .....	....	....	....	....	9	4	9	4	13
	231 Epilepsy:									
	2311 Epilepsy only .....	....	....	....	....	2	3	2	3	5
	2312 Epilepsy with mental def.....	....	....	....	....	1	....	1	....	1
	232 Alcoholism .....	....	....	....	....	18	3	19	3	21
	233 Drug addiction .....	....	....	....	....	....	....	....	....	....
	2341 Idiot .....	....	....	....	....	....	1	....	1	1
	2342 Imbecile .....	....	....	....	....	3	3	3	3	6
	2343 Moron .....	....	....	....	....	1	7	1	7	8
	236 Psychopathic personality .....	....	....	....	....	4	1	4	1	5
	241 Tabes dorsalis .....	....	....	....	....	3	....	3	....	3
	242 Neurosyphilis .....	....	....	....	....	6	4	6	4	10
24.	Primary behaviour disorders .....	....	....	....	....	1	1	1	1	2
	241 Simple adult maladjustment .....	....	....	....	....	2	1	2	....	3
	Totals.....	56	61	78	105	94	65	228	231	459

TABLE No. 7
DISCHARGES DURING 1949—SHOWING DURATION OF RESIDENCE

	Under 1 month		Under 4 months		Under 8 months		Under 1 year		Under 2 years		Under 3 years		Over 3 years		Total	
	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.
Psychoses																
01. With syphilitic meningo-encephpalitis.....	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1 2
02. With other forms of syphilis of the central nervous system.....	...	...	2	1 3	3	...	...	...	...	...	1	...	1	...	7	1 8
03. With epidemic encephalitis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
04. With other infectious diseases.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
05. Alcoholic psychoses.....	2	2 4	...	...	...	...	...	1	...	...	...	...	...	...	13	4 17
06. Due to drugs or other poisons.....	...	1 1	1	...	...	...	...	...	...	...	...	...	...	...	1	1 2
07. Traumatic psychoses.....	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...
08. With cerebral arteriosclerosis.....	1	...	2	2 4	5	2 7	1	1 2	1	...	1	...	...	...	11	5 16
09. With other disturbances of circulation.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. With convulsive disorders.....	3	1 4	...	...	...	...	...	...	1	1 2	1	1 1	1	1 1	...	...
11. Senile psychoses.....	...	1 1	6	5 11	5	2 7	1	...	...	...	...	...	...	...	5	5 10
12. Involutional psychoses.....	4	8 12	1	...	1	...	1	1 1	...	1	...	...	...	...	12	8 20
13. Due to other metabolic diseases.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	11 16
14. Due to new growth.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Associated with organic change.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16. Psychoneuroses.....	2	8 10	...	...	1	...	...	...	2	...	...	...	...	...	3	1 4
17. Manic-depressive psychoses.....	3	4 7	27	32 49	...	...	1	1 1	...	...	...	...	...	...	5	28 33
18. Schizophrenia.....	2	3 5	26	34 60	25	19 44	2	5 7	3	2 5	1	1 1	3	1 3	30	54 84
19. Paranoia and paranoid conditions.....	...	...	2	5 7	...	...	1	...	5	3 8	3	1 4	13	5 13	71	70 141
20. With psychopathic personality.....	...	...	1	...	...	...	...	1	...	...	...	...	...	...	4	8 12
21. With mental deficiency.....	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...
22. Undiagnosed psychoses.....	...	...	...	...	2	1 3	...	1 1	...	...	...	...	...	...	2	3 5
23. Without psychoses.....	17	8 25	...	...	4	...	1	...	...	...	...	...	...	...	5	2 7
24. Primary Behaviour Disorders.....	1	...	27	17 44	3	1 4	1	...	...	...	...	...	...	...	48	26 74
	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	2 4
Total.....	32	28 60	201	133 234	54	40 94	11	10 21	13	8 21	5	3 8	12	9 21	228	231 459

TABLE No. 8
RECORD OF DEATHS DURING 1949

Sex.	Age.	Time in Hospital			Cause of Death
		Years.	Months.	Days.	
M	47	11	2	11	Pulmonary Tuberculosis.
M	73	1	4	17	Senility.
M	47	1	....	6	Bronchopneumonia, Carcinoma of Pancreas.
M	71	....	....	6	Chronic Myocarditis.
M	70	....	5	27	Bronchopneumonia.
M	55	4	5	27	Acute Pancreatitis, General Paresis.
M	65	....	5	4	Chronic Nephritis.
M	55	....	....	17	Exhaustion, Delirious mania.
M	56	....	....	10	Cerebral neoplasm.
M	37	7	....	4	Rheumatic Endocarditis.
M	80	....	2	19	Senility with Senile Dementia.
M	67	....	....	30	Congestive Heart Failure, Myocarditis.
M	84	....	....	10	Bronchopneumonia, Myocardial Degeneration.
M	74	9	8	13	Coronary Occlusion, Generalized Arteriosclerosis.
M	75	....	3	23	Generalized Arteriosclerosis.
M	82	....	....	26	Coronary Occlusion, Arteriosclerosis.
M	68	2	2	19	Pulmonary Infarct, Thrombosis of vessels of right arm.
M	79	....	2	15	Exhaustion, Psychosis with Cerebral Arteriosclerosis.
M	70	....	5	29	Bronchopneumonia.
M	74	....	5	23	Generalized Arteriosclerosis.
M	60	9	8	24	Congestive Heart Failure, Myocarditis.
M	49	....	....	11	Bronchopneumonia, Multiple Carcinoma.
M	70	12	9	25	Circulatory Collapse, Myocarditis.
M	73	....	....	3	Subarachnoid haemorrhage, Arteriosclerosis.
M	36	11	7	14	Bronchopneumonia, Status Epilepticus.
M	47	12	9	19	Coronary Occlusion.
M	24	5	1	17	Pulmonary Tuberculosis.
M	69	1	4	10	Generalized Arteriosclerosis.
M	77	....	1	19	Coronary Occlusion.
M	70	1	3	16	Lobar Pneumonia.
M	64	34	3	....	Coronary Occlusion.
M	64	....	2	16	Cerebral hemorrhage.
M	55	....	....	7	Hypernephromaa.
M	77	....	2	10	Senility with Senile Dementia.
M	67	....	1	11	Small Intestinal Obstruction, right femoral hernia.
M	82	1	5	9	Senility with Senile Dementia.
M	41	....	6	8	Aspiration Pneumonia, Pulmonary Oedema.
M	74	....	11	25	Senility with Senile Dementia.
M	88	....	4	3	Senility with Senile Dementia.
F	39	16	9	10	Cirrhosis of the Liver.
F	61	....	....	13	Corculatory Collapse, Exhaustion.
F	26	....	2	17	Strangulation by Hanging.
F	54	12	3	....	Cachexia, Carcinoma of Rectum.
F	72	....	1	6	Cerebral Thrombosis.
F	66	....	3	17	Haemorrhage of Gastrointestinal Tract.
F	77	....	3	25	Exhaustion, Cerebral Arteriosclerosis.
F	65	....	....	16	Bronchopneumonia, Post-operatively Gastro-enterostomy.
F	68	2	7	14	Generalized Arteriosclerosis.
F	42	9	....	25	Osteogenic Sarcoma of Left Leg.
F	82	....	3	4	Fracture of Right Femur, Accidental Fall.
F	78	....	3	13	Generalized Arteriosclerosis.
F	33	6	7	9	General PParesis.
F	68	4	11	11	Pneumonia.
F	39	11	5	8	Cerebral Softening, Therapeutic Leucotomy.
F	57	3	4	8	Asphyxiation, Drowning.
F	73	....	....	9	Bronchopneumonia, Senile Psychosis.
F	49	15	....	17	Huntington's Chorea.
F	38	9	8	18	Pneumonia following Therapeutic Leucotomy.
F	75	....	2	26	Senility with Senile Dementia.
F	66	30	6	25	Chronic Myocarditis.
F	45	4	3	....	Pulmonary Embolism.
F	66	5	4	16	Paralysis Agitans.
F	86	....	....	11	Senility with Senile Dementia.

Totals: 39 males, 24 females.

TABLE No. 9
DEATHS DURING 1949 BY PSYCHOSES

	Psychoses	Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis	4	1	5
08	Psychoses with cerebral arteriosclerosis	13	4	17
10	Psychoses with convulsive disorders:			
102	Epileptic clouded states	1	....	1
103	Other epileptic types	1	....	1
11	Senile psychoses:			
111	Simple deterioration	8	4	12
113	Delirious and confused types	1	....	1
114	Depressed and agitated types .....	....	1	1
115	Paranoid types	1	....	1
13	Psychoses due to other metabolic, etc., disease:			
135	With other somatic disease	2	....	2
15	Psychoses associated with organic changes:			
152	With paralysis agitans .....	....	1	1
153	With Huntington's chorea .....	....	1	1
154	With other brain or nervous disease	1	....	1
17	Manic-depressive psychoses:			
171	Manic type .....	....	2	2
172	Depressive type	1	....	1
18	Dementia Praecox (Schizophrenia):			
181	Simple type	1	1	2
183	Catatonic type	1	5	6
184	Paranoid type	1	1	2
19	Paranoia and Paranoid conditions:			
191	Paranoia	1	....	1
192	Paranoid conditions	1	2	3
22	Undiagnosed psychoses .....	....	1	1
23	Without psychoses	1	....	1
	Totals	39	24	63

PROVINCIAL AUXILIARY MENTAL HOSPITAL, CLARESHOLM

Movement of Patients.

In residence on January 1st, 1949, there were 99 patients. On December 31, 1949, there were 98 patients in residence. During the year 6 patients were transferred to this hospital from the Provincial Mental Hospital, Ponoka. There was one patient admitted voluntarily. There was one re-admission by warrant of a patient who had previously been a patient at the Provincial Mental Hospital, Ponoka.

There was one patient transferred to the Provincial Auxiliary Hospital, Raymond.

There were four patients transferred to the Provincial Mental Hospital, Ponoka. Three of these patients were transferred because they were disturbed and one was transferred for further medical care.

There were three patients discharged during the year. Two patients were discharged as unimproved and one as improved.

There was one death during the year. This death was due to carcinoma.

Accidents and Elopements.

One patient sustained a fracture of her wrist, but there were no other accidents of a serious nature.

One patient eloped, but was returned to the hospital by the staff.

General Health.

The general health of the patient was good. All patients were given a complete examination by Dr. McWilliam in July. Two patients were found to have surgical conditions, to which the necessary attention will be given. Four patients were found to be diabetic and are now receiving insulin and the necessary diets. The physical condition of all other patients was found to be satisfactory.

Electric Shock Therapy.

During the month of July 10 patients were given a course of Electro-Shock Therapy. There was no marked change in the mental status of any of these patients.

Weather permitting, all ambulatory patients were taken out on the lawns or on walking parties.

Occupational Therapy.

This Department continued to do excellent work during the year. About 40 patients have been interested in this form of endeavour. Some of these patients do not go to the Occupational room, but do knitting and embroidery on the ward or out on the lawns with the help of the Occupational nurse.

During the summer months, 15 or 20 patients work in the gardens under the supervision of a ward aide. This work is enjoyed by the patients.

Recreational Activities.

Regular matinees were held for the patients twice a month at the local theatre.

There were musical programmes presented by the United Church Choir at Easter and Christmas.

Parties and the regular sports day were held for the patients. Bingo parties have interested many of the patients this year.

Beauty Parlour.

A small beauty parlour was set up with the equipment obtained through the Dominion Grant.

Religious Services.

Religious services were conducted by the local clergymen.

Dentistry.

Dr. Palmer from the Provincial Mental Hospital, Ponoka, visited this hospital during September and gave the necessary dental care. Emergency dental work was done by the local dentist.

Buildings.

Repairs and redecorating to all the buildings were carried out by the maintenance staff.

The hospital was stuccoed during the summer months.

Gardens and Grounds.

The lawns and gardens were well cared for.

There were sufficient vegetables for the whole year.

Fire Protection.

Regular fire practices were held throughout the year. The fire fighting equipment was checked and kept in proper working order.

Visitors.

Visits were made to the hospital by Dr. R. R. Maclean, Director, Division of Mental Health.

Members of the Eugenics Board acting as a Visiting Board visited and inspected the hospital in October.

Friends and relatives of the patients continued to visit the hospital

TABLE No. 1
MOVEMENT OF PATIENT POPULATION DURING 1949

	Male	Female	Total	Male	Female	Total
In residence January 1, 1948	99	99			
Admissions:						
(a) Voluntary	1	1			
(b) Certificate			
(c) Warrant			
(d) Order			
(e) Transfers	6	6			
Re-Admissions:						
(a) Voluntary			
(b) Certificate			
(c) Warrant	1	1			
(d) Order			
(e) Transfers	—	—	—	8	8
				107	107
Discharged during the year:						
(a) As Recovered	1	1			
(b) As Improved	2	2			
(c) As Unimproved			
(d) As Without Psychoses	5	5			
(e) Transferred to other hospitals			
(f) Eloped			
(g) Deported to other countries	1	1			
(h) Deaths	—	—	—	9	9
				98	98

TABLE 2
SHOWING THE PSYCHOSES OF PATIENTS IN RESIDENCE IN 1949

	Female
03 Psychoses with epidemic encephalitis	2
08 Psychoses with cerebral arteriosclerosis	4
12 Involutional Psychoses:	
121 Melancholia	3
16 Psychoneuroses:	
161 Neurasthenia	1
17 Manic-depressive psychoses:	
172 Depressive type	1
177 Other types, defective basis	1
18 Dementia praecox (Schizophrenia):	
181 Simple type	3
182 Hebephrenic type	4
183 Catatonic type	24
184 Paranoid type	23
19 Paranoia and paranoid conditions:	
191 Paranoia	10
21 Psychoses with mental deficiency	8
23 Without psychoses:	
231 Epilepsy with mental deficiency	2
234 Mental Deficiency:	
2342 Imbecile	5
2343 Moron	1
2344 Unspecified	6
Total	99

TABLE 3

RECORD OF DEATHS DURING THE YEAR 1949

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
8294	F	55	12	6	17	Carcinoma fundus uterus.

TABLE 4

CLASSIFICATION OF DEATHS ACCORDING TO PSYCHIATRIC DIAGNOSIS, 1949

Female	Schizophrenia, Catatonic type, Huntington's Chorea Suspected.
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PROVINCIAL AUXILIARY MENTAL HOSPITAL, RAYMOND

Movement of Patients.

On January 1, 1949, there were 113 patients in residence. There were four deaths during the year. One patient was received from the Auxiliary Mental Hospital at Claresholm, two from the Provincial Training School at Red Deer, and one patient was admitted on medical certificates.

Accidents and Elopements.

There were no elopements or attempts during the year.

There were three accidents requiring medical attention during the year.

All patients and staff were innoculated against Typhoid Fever in March. In June all patients were given a complete medical examination by Dr. Margaret McWilliam. Twenty patients received Electro-Shock treatments. Six patients and three staff received chest X-rays. One patient was considered to have an active Tuberculosis lesion, and arrangements were made for her transfer back to the Mental Hospital at Ponoka. All patients and staff receive one "Multiple Vitamine" capsule daily during the winter months. General health of the patients has been good with only a few colds at intervals. No gastric upsets during the year.

Dentistry.

In September, Dr. Palmer from the Mental Hospital at Ponoka visited the hospital for a week, examining and doing all work necessary for patients with teeth. Several patients received new dentures and some dentures were re-lined and adjusted.

Occupational Therapy.

This consists mainly of light tasks about the hospital, and employs part of every day approximately 75 patients. The Occupational Parlour is for needlework, sewing, knitting and all hand work.

Library.

The Library is situated in the Occupational Parlor, and one of the patients has the responsibility of listing new books and checking books in and out to the patients. The Occupational fund purchases one new book each month. Many Raymond and Lethbridge friends bring to the hospital large collections of magazines from time to time. Several patients received magazine subscriptions

in gifts. Many patients who do not do handywork, sit in the Occupational Parlour and read. This year a Medical Library for the staff was started with the purchase of many textbooks and subscriptions to weekly and monthly medical magazines.

Religious Services.

The United Church minister, Rev. W. W. Ward of Magrath, holds church services at the hospital one Sunday afternoon each month. One of the patients plays the piano for these services. The Catholic priest holds services for the Catholic patients once each month also.

Recreation and Entertainment.

Twice each month the nurses escort about 5 patients to town to a special afternoon picture show. These shows of the current pictures are quite a stimulant to these ladies, who dress up in their best clothes, fuss with their hair and make-up, and then enjoy the long walk to and from town.

On special days such as Valentine's, Easter, Hallowe'en, etc., the wards are suitably decorated and a party dance given to the patients.

In July, the Annual Sports Day and Picnic was held, with races and games. Prizes for each event are given. Fresh fruit, ice cream, candy and punch are served all afternoon and supper is served on the lawns also.

The patients are especially remembered at Christmas by the town people. The Women's Choir gave a splendid concert and brought Santa Claus with oranges, ice cream and fancy cakes. Groups of young people came up to sing carols outside the windows. The Rotary Club sent up a bag full of treats for each patient. A special party is held in the Occupational Parlour for all the patients who work. They contribute to the concert and receive a fancy lunch and a gift off the tree. Christmas day they receive a stocking of treats, a gift from the hospital, and the parcels from relatives.

For musical entertainment and stories the radios contribute, and several patients take turn playing the piano on the ward.

Approximately 50 patients have afternoon parole and about 20 have evening parole also. As often as the weather permits, the wards are cleared of all patients, and they spend the afternoons on the lawns. Supper is often served there.

Staff Changes.

There was one staff change during the year for summer relief and garden work.

Visitors.

The hospital has been visited periodically by Dr. R. R. MacLean, Director, Division of Mental Health. The Eugenics Board, acting as a board of inspection, visited the hospital in October. The hospital has been visited by fire inspectors and several members of the Department of Public Works, Maintenance, boiler inspectors, etc. The vegetable garden was inspected by the Department of Agriculture, and the cows were tested for tuberculosis and Bang's disease.

Grounds and Gardens.

Considerable work was done to the grounds about the hospital building. Curbing has been put in and gravel roadways made. The lawns were levelled for re-seeding and the ground raised about the main building to give adequate water drainage from the foundation.

The vegetable garden yielded abundantly.

New Buildings.

The Annex for fifteen more patients was completed and will be occupied early in the new year. A new building was erected behind the Nurses' Home building, which consists of a large carpenter shop, large canning and milk pasteurization room and a greenhouse. The old carpenter shop in the Nurses' Home building is being re-decorated for an addition to the Laundry.

Conclusion.

The general health of the patients and staff has remained very good, and the hospital capacity has been maintained throughout the year.

MOVEMENT OF PATIENT POPULATION DURING 1949

	Male	Female	Total	Male	Female	Total
In residence January 1, 1949	113	113
Admissions:						
(a) Voluntary			
(b) Certificates	1	1			
(c) Warrant			
(d) Order			
(e) Transfers	3	3			
	—	—	—	4	4
				117	117
Re-Admissions:						
(a) Voluntary			
(b) Certificates			
(c) Warrant			
(d) Order			
(e) Transfers			
Discharges During the year:						
(a) As recovered			
(b) As improved			
(c) As unimproved			
(d) Transferred to other hospitals			
(e) Eloped			
(f) Deported			
(g) As without Psychoses			
(h) Deaths	4	4			
	—	—	—	4	4
SIn Residence December 31, 1949	113	113

TABLE 2
SHOWING THE PSYCHOSES IN THOSE ADMITTED IN 1949

Psychoses		Male	Female	Total
02	Psychoses with other forms of syphilis of the central nervous system:			
021	Meningo-vascular (cerebral) .....	....	1	1
08	Psychosis with cerebral arteriosclerosis .....	....	1	1
10	Psychoses with convulsive disorders:			
101	Epileptic deterioration .....	....	3	3
103	Other epileptic types (arteriosclerotic) .....	....	4	4
11	Psychoses—senile:			
111	Simple deterioration .....	....	1	1
115	Paranoid types .....	....	2	2
17	Manic-depressive psychoses:			
171	Manic type .....	....	1	1
172	Depressive type .....	....	3	3
173	Circular type .....	....	1	1
18	Dementia praecox (Schizophrenia):			
182	Hebephrenic type .....	....	8	8
183	Catatonic type .....	....	19	19
184	Paranoid type .....	....	24	24
19	Paranoia and paranoid conditions:			
192	Paranoid conditions .....	....	11	11
21	Psychoses with mental deficiency .....	....	8	8
23	With psychoses:			
234	Mental deficiency:			
234b	Imbecile .....	....	8	8
234d	Unspecified .....	....	12	12
234e	Mongoloid .....	....	2	2
235	Disorders of personality due to epidemic encephalitis .....	....	1	1
		....	113	113

TABLE 3
RECORD OF DEATHS DURING 1949

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
7599	F	68	13	....	4	Hypostatic Pneumonia due to fractured end of left Femur due to Cerebro-Vascular accident due to Hypertension.
6116	F	75	15	9	28	Cerebro-Vascular accident due to Hypertension due to Arteriosclerosis.
1913	F	63	29	1	8	Carcinoma of Bowels.
11781G	F	81	....	4	3	Acute Coronary Thrombosis.

PROVINCIAL MENTAL INSTITUTE, EDMONTON

Patient Population Changes.

On January 1, 1949, there were 986 male patients and 350 female patients, making a total of 1,336. This is a gain during the year of 65. During the year a total of 260 patients were admitted in the usual ways. In addition, 138 cases were remanded by the police authorities. These required as much work as new admissions. There were, in addition, seven juvenile delinquents sent in by the Department of Child Welfare. This gives an actual total of 405 new cases. There were three transfers.

During the year a total of 192 patients were discharged and seven transferred. The number of deaths was 54, of whom 42 were over 50 years. Commonest causes of death were the degenerative diseases.

General Health.

This has been good. There were no epidemics. Routine chest examinations continued to be done on all admissions, and this is repeated annually on those remaining in hospital. We were again helped by the Mabile Clinic of the T.B. Division, who X-rayed

approximately 800 cases. T.A.B. injections were given to all patients.

Accidents and Elopements.

There were two suicidal deaths, one male and one female. One patient was killed accidentally while eloping, being struck by a freight train.

Treatment of Patients.

Electric shock treatments were given to 227 patients, a total of 310 series being given. Insulin treatments were given to a total of 120 patients. All new patients were given whatever forms of therapy appeared to be indicated. One case of neurosyphilis was admitted and transferred to the Provincial Mental Hospital at Ponoka for malarial treatment. Hydrotherapy was used to the full extent throughout the year. In addition, continued treatment in the form of both electric shock and insulin was given to a large number of patients who had been in hospital for some time.

Occupational Department.

This department carried out a very active programme. Miss Greer joined the department as a student, and in December Miss Knoll was added to the staff. The daily attendance in the department averaged from 70 to 75. Special programmes were carried out for the insuline and electric shock patients. An exhibit was again entered in the Edmonton Exhibition.

Recreational Activities.

Two recreational workers were added to the staff of the O.T. The whole recreational programme was carried out under the supervision of this department. This was a full-time schedule involving all the wards. We continued to be visited by the recreational staff of the D.V.A., who provided one show and one dance per month throughout the winter. We were also able to obtain a generous supply of tickets to events in town such as hockey games, football games, ice cycles, etc.

Library.

This was again added to and its use has increased.

Beauty Parlour.

The activity of this department has been increaser, and is now working on approximately a half-time basis.

Religious Services.

Religious services were held throughout the year. Mr. Appelt of the Lutheran Church began attendance at the hospital during the year. In addition, United, Presbyterian, Anglican, and Roman Catholic services were held regularly. Regular visits were also made by the Jewish clergy.

X-Ray Department.

This department continued to work overtime. A total of 1,382 major examinations were carried out. The operation of short wave diathermy was added to this department. They also examined all new staff and did annual repeat films on the old staff.

Laboratory.

Tuberculin tests were carried out on all new staff, and where indicated B.C.G. vaccine was given. A total of 3,828 examinations were carried out. Mr. McLuhan, a B.Sc. from the University of Alberta, joined this department.

Surgical Service.

This was not a very active department during the year. Most of the work continued to be done in the hospital by the staff. Several cases had to be referred to the University Hospital.

Dental Department.

This department continued the full-time service begun during the previous year. A total of 1,540 patients were seen, and 2,157 treatments were carried out. Of the patients, 804 have had all dental work completed to date. An effective liaison with the School of Dentistry, University of Alberta, has been established and several clinics were held at the hospital for the dental students. Dr. Scott has carried on some investigative work for the school.

Training School.

A total of 36 men and three women graduated in psychiatric nursing, completing the three year course. The enrolment in the other two years remained high.

Department of Building Maintenance.

The construction of a new T.B. dormitory was commenced, and very satisfactory progress made by the end of the year. Unfortunately it was possible to carry out the expected alterations to the kitchen. The need for suitable accommodation for new cases and mild and early cases remains very great. Repair work and considerable painting was done throughout the year. Construction was started on a new O.T. building in the late fall. Replacement of the sewage system also began in October. This was very urgently required.

Fire Protection.

Monthly fire practices were held and all new staff given instruction. Inspections were carried out by members of the Fire Inspectors' Branch.

Farm.

During the year the dairy herd was completely tested by the Department of Agriculture.

Garden.

The production of vegetables was satisfactory, only small amounts having to be purchased. Flowers and plants were supplied for the hospital wards. The grounds were maintained at the usual efficient level.

Laundry.

This department continued to be very busy.

Tailor Shop.

They continued to be very busy. It is hoped to add several more machines and to increase the facilities.

Shoe Shop.

This department functioned quite efficiently.

Sewing Room.

This department, which is concerned largely with repairs to patients' clothing and the supplying of staff uniforms, was, as usual, very busy.

Dietary Department.

The appointment of Mrs. McLeod as Dietitian has resulted in a great improvement in this department as well as efficiency in the use of supplies. She also gave a course of lectures to the students.

Department of Chief Engineer.

Heat and light were provided throughout the year. The usual difficulty with the water supply has persisted. The main connecting us with the city water supply is being renewed, and it is not expected any further difficulties will arise.

Guidance Clinic.

Members of the staff continue to take clinics at intervals throughout the year, especially in the north-east part of the Province.

Police Court.

Full service to the City and R.C.M.P. courts was continued throughout the year. This work is increasing each year. Its importance from a mental hygiene viewpoint cannot be over-estimated.

Business Office.

This department also had a very busy year.

Staff.

The staff situation on the male side has remained good. There is little movement and the general quality remains high. The situation on the female side is somewhat better. There is not the same exchange of personnel, and we have been able to obtain more registered nurses.

Dr. Davis was added to the medical staff. He has had extensive general practice experience. The shortage of medical staff remains a serious problem.

D.V.A.

The D.V.A. have continued to assist us in the recreational field. We are given one movie a week, a number of stage shows and dances. Ex-service patients are taken for bus rides weekly.

Visitors.

The hospital was visited at frequent intervals throughout the year by Dr. Cross, Dr. Bow and Dr. MacLean. The Visiting Board inspected the hospital in November.

TABLE No. 1

MOVEMENT OF PATIENT POPULATION DURING 1949

	Male	Female	Total	Male	Female	Total
In reidence December 31, 1948				966	305	1271
On leave or otherwise absent				31	27	58
Admissions:						
First Admissions:						
(a) Voluntary	15	9	24			
(b) Certificates	44	62	106			
(c) Warrant	27	62	106			
(d) Mental Defectives Act	9	5	14			
	—	—	—	95	86	181
Re-Admissions:						
(a) Voluntary	7	16	23			
(b) Certificates	17	17	34			
(c) Warrant	1	6	7			
(d) Mental Defectives Act	11	1	12			
	—	—	—	36	40	76
Transfers				1	2	3
				1129	460	1589
Total Admissions	132	128	260			
Separations:						
Discharges:						
(a) As recovered	31	36	67			
(b) As improved	37	44	81			
(c) As unimproved	26	18	44			
	94	98	192			
Transfers	4	3	7			
Deaths	45	9	54			
	—	—	—	143	110	253
Total Separations	143	110	253			
In hospital December 31, 1949				945	328	1273
On leave or otherwise absent				41	22	63
Total on books December 31, 1949				986	350	1336

TABLE No. 2

PSYCHOSES OF THE PATIENT POPULATION, DECEMBER 31, 1949

	Male	Female	Total
01 Psychoses with syphilitic meningoencephalitis (general paresis)	37	6	43
02 Psychoses with other forms of syphilis of the central nervous system	2	....	2
023 Other types (taboparesis)	3	....	3
03 Psychoses with epidemic encephalitis	2	1	3
04 Psychoses with other infectious diseases	1	....	1
05 Alcoholic psychoses	1	1	2
054 Acute hallucinosis	5	....	5
055 Other types (chronic hallucinosis)	2	1	3
06 Psychosis due to drugs or other exogenous poisons:			
064 Due to other drugs	....	1	1
07 Traumatic psychoses:			
073 Post-traumatic mental deterioration	4	....	4
08 Psychoses with cerebral arteriosclerosis	24	6	30
09 Psychoses with other disturbances of circulation	1	....	1
10 Psychoses with convulsive disorders (epilepsy)	1	3	4
101 Epileptic deterioration	4	3	7
102 Epileptic clouded states	22	5	27
103 Other epileptic types	....	1	1
11 Senile psychoses	1	....	1
111 Simple deterioration	7	5	12
112 Presbyophrenic type	....	2	2
113 Delirious and confused types	1	....	1
114 Depressed and agitated types	....	2	2
115 Paranoid types	10	1	11
12 Involutional psychoses:			
121 Melancholia	2	5	7
122 Paranoid types	....	1	1
13 Psychoses due to other metabolic, etc., diseases:			
135 With other somatic diseases	1	....	1
14 Psychoses due to new growth:			
141 With intracranial neoplasms	....	1	1
15 Psychoses associated with organic changes of the nervous system:			
151 With multiple sclerosis	1	....	1
1533 With Huntington's chorea	....	1	1
154 With other brain or nervous diseases	3	....	3
16 Psychoneuroses:			
161 Hysteria (anxiety hysteria, conversion hysteria and sub-groups)	1	....	1
162 Psychasthenia or compulsive states (and sub-groups)	....	1	1
164 Hypochondriasis	1	2	3
165 Reactive depression (simple situational reaction, others)	3	2	5
166 Anxiety state	1	1	2
167 Mixed psychoneurosis	1	....	1
17 Manic-depressive psychoses:			
171 Manic type	17	18	35
172 Depressive type	17	9	26
173 Circular type	....	1	1
174 Mixed type	....	1	1
177 Other types	1	....	1
18 Dementia Praecox (schizophrenia)	1	2	3
181 Simple type	8	1	9
182 Hebephrenic type	58	8	66
183 Catatonic type	287	110	397
184 Paranoid type	200	42	242
185 Other types	7	4	11
19 Paranoia and paranoid conditions	42	....	42
191 Paranoia	....	1	1
192 Paranoid conditions	1	9	10
20 Psychoses with psychopathic personality	2	....	2
21 Psychoses with mental deficiency	59	31	90
22 Undiagnosed psychoses	5	3	8
23 Without psychoses:			
231a Epilepsy	1	2	3
231b Epilepsy with mental deficiency	19	4	23
232 Alcoholism	3	....	3
233 Drug addiction	....	1	1
234 Mental Deficiency:			
234a Idiot	21	14	35
234b Imbecile	60	31	91
234c Moron	27	4	31
234d Unspecified	2	1	3
235 Disorders of personality due to epidemic encephalitis	2	1	3
236 Psychopathic personality:			
2362 With pathological emotionality	1	....	1
24 Primary behaviour disorders:			
2422 Conduct disturbance	2	....	2
2423 Neurotic traits	1	....	1
Totals	986	350	1336

TABLE No. 3
PSYCHOSES BY ADMISSION, 1949

	Male	Female	Total
01 Psychoses with syphilitic meningoencephalitis (general paresis)	....	2	2
02 Psychoses with other forms of syphilis of the central nervous system:			
023 Other types (taboparesis)	1	....	1
04 Psychoses with other infectious diseases: :			
045 Post-infectious psychoses	1	....	1
05 Alcoholic psychoses:			
052 Delirium tremens	2	....	2
054 Acute hallucinosis	4	....	4
055 Other types	2	....	2
08 Psychoses with cerebral arteriosclerosis	11	1	12
09 Psychoses with other disturbances of circulation:			
091 With cerebral embolism	....	1	1
093 Other types	....	1	1
10 Psychoses with convulsive disorders (epilepsy)	....	1	1
101 Epileptic deterioration	....	1	1
102 Epileptic clouded states	1	....	1
103 Other epileptic types	....	2	2
11 Senile psychoses:			
111 Simple deterioration	4	6	10
112 Presbyophrenic type	....	2	2
114 Depressed and agitated types	....	1	1
115 Paranoid types	3	3	6
12 Involutional psychoses:			
121 Melancholia	2	6	8
14 Psychoses due to new growth:			
141 With intracranial neoplasms	....	1	1
16 Psychoneuroses	1	....	1
164 Hypochondriasis	1	4	5
165 Reactive depression	3	8	11
166 Anxiety state	2	....	2
17 Manic-depressive psychoses	2	2	4
171 M;anic type	4	8	12
172 Depressive type	3	9	12
173 Circular type	2	....	2
177 Other types	1	....	1
18 Dementia Praecox (schizophrenia)	....	3	3
181 Simple type	3	1	4
183 Catatonic type	29	28	57
184 Paranoid type	6	4	10
185 Other types	2	1	3
19 Paranoia and paranoid conditions: :			
192 Paranoid conditions	3	3	6
21 Psychoses with mental deficiency	2	3	5
22 Undiagnosed psychoses	2	1	3
23 Without psychoses	1	1	2
231 Epilepsy:			
231a Epilepsy only	1	2	3
231b Epilepsy with mental deficiency	2	....	2
232 Alcoholism	13	3	16
233 Drug Addiction	....	9	9
234 Mental Deficiency:			
234a Idiot	2	2	4
234b Imbecile	5	4	9
234c Moron	3	2	5
234d Unspecified	1	....	1
235 Disorders of personality due to epidemic encephalitis	1	....	1
236 Psychopathic personality	3	1	4
2364 Mixed types	1	1	2
24 Primary behaviour disorders:			
241 Simple Adult Maladjustment	2	....	2
Totals	132	128	260

TABLE No. 4
NATIVITIES OF PATIENTS ADMITTED DURING 1949

	Male	Female	Total		Male	Female	Total
Austria	4	2	6	Poland	4	6	10
Canada	83	88	171	Roumania	....	1	1
Czechoslovakia	2	....	2	Russia	3	1	4
England	10	12	22	Scotland	5	5	10
Finland	....	1	1	Sweden	1	2	3
Germany	....	1	1	United States	9	3	12
Holland	....	2	2	Other Countries	2	....	2
Hungary	....	1	1				
Ireland	6	3	9	Totals	132	128	260
Norway	3	....	3				

TABLE No. 5
AGE OF PATIENTS ADMITTED DURING 1949

Ages	First Admissions			Re-Admissions			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Under 15 years	3	2	5	1	2	3	4	4	8
15 to 19 years	8	9	17	1	...	1	9	9	18
20 to 24 years	11	7	18	3	4	7	14	11	25
25 to 29 years	12	16	28	4	2	6	16	18	34
30 to 34 years	9	12	21	1	2	3	10	14	24
35 to 39 years	7	4	11	9	12	21	16	16	32
40 to 44 years	6	4	10	3	5	8	9	9	18
45 to 49 years	7	8	15	7	6	13	14	14	28
50 to 54 years	1	6	7	1	...	1	2	6	8
55 to 59 years	5	6	11	3	3	6	8	9	17
60 to 64 years	8	4	12	2	3	5	10	7	17
65 to 69 years	6	3	9	...	...	...	6	3	9
70 and over	13	7	20	1	1	2	14	8	22
Totals	96	88	184	36	40	76	132	128	260

TABLE No. 6
DISCHARGES, CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES AND
CONDITION OF DISCHARGE, FOR THE YEAR 1949

Psychoses	Recovered			Improved			Unimproved			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
05 Alcoholic Psychoses:												
052 Delirium Tremens	1	...	1	1	...	1	...	...	...	2	...	2
054 Acute hallucinosis	...	...	...	2	...	2	...	...	...	2	...	2
055 Other types	...	...	...	1	...	1	...	...	...	1	...	1
0 Psychoses with cerebral arteriosclerosis	...	...	...	1	2	3	...	1	1	1	3	4
09 Psychoses with other disturbances of circulation	1	...	1	...	...	...	...	...	...	1	...	1
091 With cerebral embolism	...	1	1	...	...	...	...	...	...	...	1	1
10 Psychosis with convulsive disorders (epilepsy)	...	1	1	...	...	...	...	...	...	...	1	1
101 Epileptic deterioration	...	...	...	1	1	2	...	...	...	1	1	2
103 Other epileptic types	...	...	...	...	...	...	...	...	...	...	...	...
11 Senile Psychoses:							2	2	...	2	2	2
111 Simple deterioration	...	...	...	1	1	2	1	...	1	2	1	3
114 Depressed and agitated types	...	...	...	...	...	...	1	2	3	1	2	3
115 Paranoid types	...	...	...	...	...	...	...	...	...	...	...	...
12 Involutional Psychoses:	2	1	3	...	...	...	1	1	...	2	2	4
121 Melancholia	...	...	...	1	1	...	...	...	...	1	...	1
16 Pspchoneurcses	1	...	1	...	...	...	...	...	...	1	...	1
162 Psychasthenia or compulsive states	...	...	...	1	1	...	...	...	...	1	...	1
163 Neurasthenia	1	1	2	...	1	1	...	...	...	1	2	3
164 Hypochondriasis	...	3	3	...	3	3	...	...	...	6	...	6
165 Reactive depression	...	...	...	1	...	1	...	...	...	1	...	1
166 Anxiety state	1	2	3	...	...	...	...	...	...	1	2	3
17 Manic-depressive psychoses	4	5	9	...	2	2	...	1	1	4	8	12
171 Manic type	3	8	11	1	2	3	...	...	...	4	10	14
172 Depressive type	1	...	1	...	...	...	...	...	...	1	...	1
173 Circular type	1	...	1	...	1	1	...	...	...	1	1	2
177 Other types	1	...	1	...	1	1	...	1	1	1	2	3
18 Dementia praecox (schizophrenia)	1	...	1	...	...	...	...	...	...	1	...	1
181 Simple type	4	11	15	17	14	31	2	...	2	23	25	48
183 Catatonic type	...	...	...	...	...	...	...	...	...	...	...	...
184 Paranoid type	2	1	3	1	2	3	2	...	2	5	3	8
185 Other types	...	...	...	...	...	...	1	...	1	1	...	1
19 Paranoit and paranoid conditions:												
192 Paranoid conditions	1	...	2	2	...	2	2	...	2	5	...	5
21 Psychoses with mental deficiency	...	...	...	...	...	...	2	...	2	2	...	2
22 Undiagnosed psychoses	1	1	2	...	...	...	1	...	1	2	1	3
23 Without psychoses	1	...	1	...	...	...	...	1	1	1	1	2
231a Epilepsy only	...	...	...	1	2	3	...	...	...	1	2	3
231b Epilepsy with mental deficiency	...	...	...	...	...	...	1	1	2	1	1	2
232 Alcoholism	2	...	2	3	1	4	6	2	8	11	3	14
233 Drug addiction	...	1	1	...	6	6	...	1	1	...	8	8
234 Mental deficiency	...	...	...	1	...	1	...	2	2	1	2	3
234b Imbecile	...	...	...	...	...	...	...	1	1	...	1	1
234c Moron	...	...	...	1	1	2	3	...	3	4	1	5
236 Psychopathic personality	...	...	...	1	...	1	1	1	2	2	1	3
2364 Mixed types	1	...	1	...	1	1	...	...	...	1	1	2
2363 With asocial or amoral trends	...	...	...	1	...	1	1	...	1	2	...	2
24 Primary behaviour disorders:												
241 Simple adult maladjustment	1	...	1	...	...	...	1	...	1	2	...	2
242 Primary behaviour disorders in children:												
2422 Conduct disturbance	...	...	...	...	...	...	1	1	2	1	1	2
Totals	31	36	67	37	44	81	26	18	44	94	98	192

TABLE 7
DISCHARGES DURING 1949—SHOWING DURATION OF RESIDENCE

	Under 3 months		Under 6 months		Under 9 months		Under 12 months		Under 18 months		Under 2 years		Over 2 years		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Psychoses																
05 Alcoholic psychoses	4	4	...	...	...	...	...	...	...	...	...	...	...	...	4	4
08 Psychoses with cerebral arteriosclerosis	...	2	...	...	...	...	...	...	...	...	1	...	...	...	1	3
09 Psychoses with other disturbances of circulation	1	1	2	...	...	...	...	...	...	...	...	...	...	...	1	1
10 Psychoses with convulsive disorders (epilepsy)	...	2	2	...	...	...	1	...	1	...	...	...	...	...	1	3
11 Senile psychoses	...	2	2	...	...	3	1	...	1	...	...	...	...	...	3	5
12 Involutional psychoses	1	2	3	...	...	...	...	...	...	...	...	...	...	...	2	2
15 Psychoses associated with organic changes of the nervous system	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1
16 Psychoneuroses	2	8	10	...	...	1	1	...	1	...	...	...	...	...	3	10
17 Manic-depressive psychoses	7	13	20	...	...	1	1	2	...	...	...	...	...	...	11	21
18 Dementia praecox (schizophrenia)	14	11	25	...	5	7	12	1	1	2	...	...	...	...	32	30
19 Paranoia and paranoid conditions	...	...	...	2	...	...	1	...	...	...	...	...	...	...	5	...
21 Psychoses with mental deficiency	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1
22 Undiagnosed psychoses	1	1	2	...	...	...	...	...	...	...	...	...	...	...	3	1
23 Without psychoses	17	16	33	...	...	...	...	...	2	1	3	...	...	...	24	21
24 Primary behaviour disorders	2	...	2	...	...	...	...	...	...	1	...	...	...	...	2	1
Totals	49	58	107	19	20	39	5	12	17	4	3	7	2	...	94	98

TABLE 8
RECORD OF DEATHS, 1949

Register No.	Sex.	Age.	Time in Hospital			Cause of Death
			Years.	Months.	Days.	
178	M	55	25	....	....	Myocardial degeneration.
243	M	60	24	7	3	Acute lobar pneumonia.
262	M	76	23	10	....	Myocardial degeneration.
295	M	76	....	....	21	Fatty degeneration of the heart.
314	M	63	23	4	20	Pulmonary tuberculosis.
355	M	46	15	4	2	Fatty degeneration of the heart.
453	M	47	19	....	....	Gangrene of the bowel.
474	M	35	16	11	5	Encephalitis lethargica, acute exacerbations.
488	M	51	17	1	4	Myocardial degeneration.
497	M	76	17	....	5	Myocardial degeneration.
494	M	71	21	2	27	Cerebral haemorrhage.
507	M	75	17	4	20	Cerebral haemorrhage.
546	M	68	16	7	6	Chronic myocarditis.
557	M	66	17	....	15	Myocardial degeneration.
866	M	47	14	....	8	Cachexia.
872	M	76	25	10	3	Myocardial degeneration.
801	M	51	11	10	11	Myocardial degeneration.
907	M	61	18	5	25	Fatty degeneration of the heart.
940	M	57	12	1	4	Myocardial degeneration.
973	M	52	11	1	18	Pulmonary tuberculosis.
978	M	57	11	7	....	Mitral stenosis.
1041	M	49	11	2	25	Acute haemorrhagic pulmonary oedema.
1089	M	63	10	4	13	Acute heart failure.
1149	M	28	13	1	20	Myocarditis.
1164	M	56	8	10	5	Asphyxia.
1253	M	32	7	1	6	Acute ventricular fibrillation.
1544	M	62	6	1	19	Septic pneumonia.
1565	M	56	6	2	6	Exacerbation of a chronic encephalitis.
1792	M	47	4	5	21	Terminal pneumonia.
1855	F	42	4	5	....	Bronchopneumonia.
1917	M	46	3	9	22	Fracture of skull and lacertaions of brain.
1953	M	90	3	7	17	Chronic myocarditis.
1956	M	51	4	3	3	Myocardial degeneration.
1958	M	50	6	....	29	Right coronary artery thrombosis.
1974	M	56	3	9	13	Myocarditis (degeneration).
1987	M	54	3	10	4	Cerebral haemorrhage.
2093	M	31	2	6	10	Chronic endocarditis (rheumatic).
2102	M	61	2	3	....	Acute circulatory failure with acute pul- monary oedema.
2223	M	60	1	2	18	Cerebral haemorrhage.
2325	M	82	....	5	17	Myocardial degeneration.
2332	F	60	1	1	20	Cerebral haemorrhage.
2396	M	79	1	....	27	Myocardial degeneration.
2447	M	70	....	9	17	Myocardial degeneration.
2467	F	70	....	3	18	Hypostatic pneumonia.
2470	M	63	....	....	19	Myocardial degeneration.
2481	F	55	....	....	16	Hypertensive heart disease with cardiac failure.
2489	F	34	....	....	17	Acute myocarditis.
2500	F	72	....	....	3	Cerebral Arteriosclerosis.
2512	F	60	....	1	..	Inanition due to senile psychosis.
2524	F	87	....	....	23	Coronary occlusion.
2543	M	64	....	....	15	Myocardial degeneration.
2556	M	50	....	1	23	Death under pentothal anaesthesia.
2585	M	56	....	....	11	Cerebral softening.
2591	M	67	....	....	19	Myocardial degeneration.
Total, 54						

TABLE 9
DEATHS DURING 1949 BY PSYCHOSES

	Male	Female	Total
01 Psychoses with syphilitic meningoencephalitis (general paresis)	3	....	3
03 Psychoses with epidemic encephalitis	1	....	1
08 Psychoses with cerebral arteriosclerosis	4	2	6
09 Psychoses with other disturbances of circulation	1	1	2
10 Psychoses with convulsive disorders (epilepsy)	1	....	1
11 Senile psychoses	5	2	7
12 Involutional psychoses: :			
121 melancholia .....	....	1	1
13 Psychoses due to other metabolic, etc., diseases	1	....	1
17 Manic-depressive psychoses	3	....	3
18 Dementia praecox (schizophrenia)	14	2	16
19 Paranoia and paranoid conditions	1	....	1
21 Psychoses with mental deficiency	2	1	3
23 Without psychosis	9	....	9
Totals.....	45	9	54

TABLE 10
NUMBER OF OFFICERS AND EMPLOYEES ACCORDING TO CATEGORIES

	Male	Female	Total
Medical Superintendent	1	....	1
Medical Officers	4	1	5
Dentist	1	....	1
Business Superintendent	1	....	1
Clerical and Stenographic Staff	3	6	9
Laboratory Technicians	1	....	1
X-Ray Technicians	1	....	1
Occupational Therapists	1	3	4
Industrial Therapy Instructors	2	2	4
Nurses (Registered) .....	....	12	12
Nurses (mental graduates)	45	6	51
Attendants and Ward Aides (non-student)	32	18	50
Attendants and Ward Aides (1st year students)	19	23	42
Attendants and Ward Aides (2nd year students)	8	3	11
Attendants and Ward Aides (3rd year students)	11	4	15
Dietitian .....	....	1	1
Kitchen Help	15	....	15
Laundry Help	2	5	7
Domestic Help .....	....	8	8
Garden and Farm Help	13	....	13
Engineers and Mechanical Help	40	....	40
Other maintenance help	3	....	3
Total	203	92	295

PROVINCIAL TRAINING SCHOOL, RED DEER

In Residence, Admissions, Paroles, Deaths.

The patient population of the School at the end of this year consisted of 293 patients, of which there 159 male patients and 134 female patients. There were 40 admitted 16 male, 24 female).

Of these admissions, 28 (13 male, 15 female) were first admissions and 10 were re-admissions (one of whom was a transfer from the Provincial Mental Institute), and 2 transfers.

We were able to parole 32 patients (14 male, 18 female) in the core of their families or for outside work on farms or for domestic work, and with notably few exceptions have achieved successful community acceptance of these children and praise of their mode of work and social adjustment. There were 5 transfers (2 male, 3 female) and a total of 8 deaths (6 made, 3 female). Details of these groups are given in Tables 1, 3, 4, 5, 6, 7.

Applications for Admission.

During the year there were 80 application forms sent for admission of Mentally Deficient children. In contradistinction to former years these application forms, accompanied by Guidance Clinic assessment memoranda, have given a greater overall survey of the problem of admission and have permitted us to judge with greater validity the children requiring most urgent admission.

Sterilizations.

Twenty-two cases (5 male, 17 female) were presented to the Eugenics Board. Of these, 1 male was not approved and 5 females were deferred. Four males and 9 females were sterilized this year, including 1 female from 1948 list. Four females were awaiting sterilization.

One Guidance Clinic case was compiled at the School, presented to the Board, and subsequently sterilized.

Staff Changes and Activities, Training, etc.

On 3rd July, 1949, Drs. D. L. McCullough and Mary McCullough retired after 18 years of devoted service in the School's interest.

The traditions which they set for the care and training of the children were most valuable in forming a central core of trained personnel to train the comparatively large number of female personnel who joined the staff towards the latter half of this year.

Health of Staff and Patients.

There has been little serious illness during the year.

There have been several members of the staff affected with an acute follicular tonsilitis, and we have isolated a Strept. haemolyticus organism in most instances.

One of the patients at the School suffered a double malleolar fracture while playing. There was no loss of function and normal activity has been resumed.

On May 26th, the Mass Miniature Radiography Unit made a survey of the chests of patients and staff of the School and were unable to detect a single case of active Pulmonary Tuberculous infection.

Arrangements have been completed with the Full-time Health Unit of Red Deer to conduct a Tuberculin test survey of the entire School and immunize all members, patients and staff, who do not already show positive response, in an effort to maintain this high standard of respiratory health.

Through the facilities offered by the Dominion Federal Grant we were able to set up a Dental Surgery and obtain the services of Drs. Husband and Oatway, both acting in conjunction as part-time dentists for the School.

Work is at present conducted on one afternoon per week and in 4½ total days' work.

We tabulate as work accomplished:

Examinations	57
Deep Scalings	40
Simple Fillings (1 surface)	11
Extractions	23
Compound Fillings (2 or more surfaces)	38
Prophylaxis	14
Adjusting occlusions	1

In consultation with our part-time dental staff we have reduced the number of children who were having low-grade diet (requiring no mastication) from approximately 175 to barely 25.

Training Programme.

The overall aim of the training programme is to produce self-controlled, self-confident, at least partially self-supporting citizens. The training scheme is being expanded and altered in such ways that a larger number of trainees may be returned to the community and successfully adjusted therein. Character building is emphasized in all branches of training. The importance of developing in the trainees proper social attitudes, good habits of thought and action is stressed to all staff members. Not only the qualified teachers and therapists, but every member of the staff is regarded as an instructor in some phase of life.

Co-education has been introduced into the academic classroom

and has resulted, among the school children, in a much better adjustment to members of the opposite sex. Co-education will therefore be gradually introduced into those training departments concerned with the older trainees.

Due to the increased facilities provided through the Federal Health Grant the training programme has been expanded with regard both to the types of training provided and the number of children receiving specialized training. With the increase in instructional staff the trainees receive the benefit of much more individualized supervision and instruction.

The types of training being given may be divided into four main categories: Sense training, academic training, occupational training, and recreational training.

Sense Training: Four sense training classes were established. Three of these classes were concerned with the younger children. The fourth was comprised of older trainees who had some particular sense defect.

Academic Training: Three academic classrooms were set up—pre-primary, primary, and elementary. The number of children receiving academic training has been increased to some extent; the number of pupil-hours per day has been tripled to 165 pupil hours daily.

The school programme was revised and more emphasis placed on pupil participation. Although formal lessons are a necessary part of each teaching day, simple projects and other pupil activities play a large part in the classroom programmes.

Occupational Training: School children in their second or third year of elementary work were assigned, during out-of-school hours, as helpers in the various work departments and thus receive an initial training therein.

When it was evident that a trainee would receive little further benefit from academic training he (she) was placed in the category "Full-time Worker". Those workers who were somewhat trainable, but of a non-parolable classification, were trained to do useful and necessary jobs around the school. Those of parolable calibre received an intensive training in the work of each of the various departments. A monthly progress report was submitted on each trainee and a record kept of his (her) efficiency in each department. Those who showed special interest and ability in any particular type of work were given additional training and instruction therein.

The girls received contact training in the following departments: Laundry, sewing room, dining room, kitchen, domestic and wards. There were daily classes in which girls receive instruction in sewing, knitting, embroidery, crocheting, dressmaking, and in the use of hand and power sewing machines. Cooking classes have been started.

The boys were given practical training in general farm work, as gardener's helper, carpenter's helper, and in general janitor and handyman work. Daily classes were held in which boys received formal training in carpentry, painting and varnishing. The school baker gave selected boys training as baker's assistants.

Recreational Training: In the warmer months the recreational activities are, in the main, of an outdoor nature. In the winter months, apart from skating and sleighing, most activities are carried on in the new Recreational Hall. Children are encouraged to participate in team sports and group activities.

A weekly movie and periodic dances, parties and concerts are held for the children. In the evenings extra staff are assigned to each ward whose duty it is to organize activities which will keep the children interested and occupied until bedtime.

Bedridden and wardbound patients are regularly supplied with toys, games, jig-saws, books, and are encouraged to pursue any hobbies in which they show interest and ability.

There is a summer camp in operation. The children are allowed to stay there, under supervision, for several days at a time, and thus are given a break from the necessary routine of institutional life. Boy Scout and Girl Guide troops are being organized. When these are well established, Brownie and Cub packs will be formed.

Negotiations are in progress to acquire the services of a Recreational Therapist. With this addition to the staff and with the increased recreational equipment made possible by the Federal Health Grant, the Recreational Training programme can be expanded and improved.

Psychotherapy: Those trainees who, because of personality and behaviour difficulties, had become discipline problems were given psychotherapeutic interviews. It was found that because of their low level of intelligence the usual psychotherapeutic measures were not too effective. However, a modified form of psychotherapy, making use of strong suggestion and positive guidance, has resulted in a noticeable improvement in the general behaviour of these problem cases. Individual psychotherapy is a slow, time consuming activity, and is of benefit only to the immediate contact. For this reason it was felt that Group Therapy might provide an even greater facility for character building and strengthening amongst our defective population, and plans have already been implemented to inaugurate this early in the new year.

Training Programme for Nursing Personnel.

We have (due to our large augmentation of staff), reinaugurated an intensive training programme for our nursing personnel.

The direction in which we are attempting to orient this training has been to, in so far as possible, get away from a hospital attitude and more towards an attitude of the School functioning as a home-substitute. The stress has been placed on the training of children to prepare them for discharge to the community.

We have, however, not been able to neglect the importance of some regular medico-surgical nursing training since there is a not insignificant proportion of bedridden and non-ambulant population.

We are indebted to the Parsons Clinic in Red Deer for donating several hours each week as lecturers in Medicine, Surgery, and Pediatrics; to the Director of the Full-time Health Unit of Red Deer, Dr. Charles More, for lectures in Public Health, Communicable Diseases and First Aid; to Dr. D. L. McCullough for weekly lectures on Anatomy and Physiology; and to Dr. J. L. Edwards for lectures on Anatomy and Physiology of the Nervous System. Their

work has proved invaluable in enabling us to train a large group of over fifty persons to a high level of competency.

Extra-school Activity.

With the co-operation and facilities made available by the Full-time Health Unit, since October 21st, 1949, we have been able to establish a Psychiatric Guidance Clinic both for adults and children at Red Deer. This meets twice weekly. Since its inception we have seen 28 new cases. In many instances there have been as many as three interviews with each patient. At the beginning, the preponderant type of patient seen was the mental defective. Since mid-November there has been considerable alteration in the picture. It is the normal child whom we are mainly now seeing, who is brought in by parents who seek advice and guidance in solving the numerous difficulties which may arise during the transition from child to adult life. Adult cases have also started turning up, and in December alone there were four.

This service is very favourably regarded by the local medical practitioners, who have indicated this both verbally and by their degree of co-operation.

Guidance Clinics were also attended at Didsbury and Rocky Mountain House.

New Accommodation and Its Benefits.

Three new wards were completed during the year. These are of the villa type and have incorporated many new and original features to facilitate the care and attention necessary for the well-being of the children-patient population. Heat is delivered into the day rooms and dormitories via units fixed in the ceiling and under the floor. This permits of equable thermostatically controlled temperature throughout the ward without the previous dangers of being burned by hot radiators. This also makes easy access to all parts of the floors for cleaning instead of (as previously) having areas immediately under and behind the radiators, where dust and dirt would perforce collect.

Perhaps even more important has been the facility now made available by these new wards to reclassify the patient population into mental and chronological age levels and redistribute them in suitable wards, and in this way invite the admixture of various types of defectives in the same ward. This policy has already proved its value by the overall easier management and progress we have been able to make with all the levels of our children population. Nursing has also been made considerably easier by the new groupings of the patients.

Work has progressed considerably on the new higher-grade girls' dormitory. The structure has had the foundation, outer walls, and roof completed. Work continues on the inside when weather permits. This building will be used for the trained higher grade girls who are awaiting placement and parole in the community.

The main building has been reconstructed inside in its entirety. This, one feels, has helped considerably in the recruiting of nursing staff to bring us to a normal level.

The new accommodation is most commodious, and at present we are able to offer our nursing staff many facilities in the way of bedroom accommodation, recreational facilities et al, which might

be the envy of several larger and more important hospitals and institutions. Morale amongst the nursing staff has shown considerable strengthening recently, and it is felt that better living conditions are, in the main, strongly contributory.

A new Recreation Hall was completed this fall. It offers facilities of basketball, volleyball, gymnastics, in the way of athletics for many of the children. In addition, it offers many social, cultural and educational possibilities, such as giving us greater scope for sense training for the younger children, also concerts, cinema, and dances for all the children of sufficient mental age.

Farm and Garden Produce.

The farm has not been able to produce the yield of previous years. This has been largely associated with inclement weather conditions which affected many farms of the Red Deer district, and we were obliged to supplement our farm produce by purchases of such basic requirements as potatoes, straw, and farm animal feeding stuffs in the early autumn.

Laundry and Sewing Room.

There is little new to report in these departments. The Laundry has had three new drying machines installed, which has greatly accelerated the handling of the clothing. It is, however, conceivable that in the not too distant future a larger and more commodious building will need to be erected to cope with the expanding requirements of the School.

The Sewing Room is sufficient at present for our requirements.

Kitchen and Diet.

The reconstruction of the Kitchen was completed during the year. Three ice boxes were built in, and a dishwashing machine and two steam kettles added. Gas pipes have been laid for the addition of gas ovens.

Towards the close of the year we were able to add a supernumery assistant cook and baker to the staff. It is hoped to be able to utilize his services, in addition to our culinary requirements, as a means for a special vocational project for our higher grade boys and girls. This instruction in baking will prepare them, when they leave the School, to obtain work as assistants in cake and bread-making establishments.

Acknowledgment.

We are not unaware that our new work has received considerable impetus by the suggestions and facilities made possible by the Hon. Dr. W. W. Cross, Minister of Health, and the Deputy Minister, Dr. Malcolm R. Bow.

We are particularly desirous of expressing our thanks to Dr. Randall R. MacLean, Director of Division of Mental Health of Alberta, for the sympathetic consideration he has always given us and for the patience displayed in helping us solve the infinite problems with which we presented him during our first year in office.

TABLE 1

MOVEMENT OF FEEBLE-MINDED POPULATION

	Male	Female	Total
Defectives on books of Institution at January 1st, 1949:			
In Provincial Training School, Red Deer, Alberta	165	133	298
ADMISSIONS:	Male	Female	Total
1. First admissions, voluntary	13	15	28
2. Re-admissions	1+1	8	9
3. Transfers:			
From P.M.I., Edmonton	1+1	—	2
From P.M.H., Ponoka	—	1	1
.....	—	—	—
Total number of admissions	16	24	40
Total number of Defectives on books during 1949 ...	181	157	338
OUTGOING:			
1. Parole	14	18	32
2. Transfers:			
From P.M.I., Edmonton	1	—	—
From P.M.H., Ponoka	1	1	—
From P.A.H., Raymond	—	2	5
3. Deaths	6	2	8
.....	—	—	—
Total number outgoing	22	23	45
Defectives on books of the institution at Dec. 31st, 1948 .	159	134	293

TABLE 2

AGE OF RESIDENT POPULATION CLASSIFIED WITH REFERENCE TO MENTAL STATUS

Age Group	Idiot			Imbecile			Moron			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0- 4	—	1	1	—	—	—	—	—	—	1	—	1
5- 9	1	5	6	10	6	16	3	2	5	14	13	27
10-14	9	11	20	22	11	33	11	7	18	42	29	71
15-19	12	4	16	15	6	21	7	13	20	34	23	57
20-24	10	5	15	15	9	24	1	4	5	26	18	44
26-29	5	4	9	14	6	20	2	2	4	21	12	33
30-34	4	7	11	6	6	12	—	2	2	10	15	25
35-39	3	3	6	3	7	10	1	1	2	7	11	18
40-44	—	3	3	2	4	6	1	—	1	3	7	10
45-49	—	3	3	1	2	3	—	—	—	1	6	6
50-54	—	—	—	1	—	1	—	—	—	1	—	1
Totals	44	46	90	89	57	146	26	31	57	159	134	293

TABLE 3

MENTAL STATUS OF FIRST ADMISSIONS, RE-ADMISSIONS AND TRANSFERS

Mental Status	First Admissions			Re-admissions			Transfers			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Idiot	5	7	12	—	—	—	—	—	—	5	7	12
Imbecile	4	3	7	—	2	2	2	—	2	6	5	11
Moron	4	5	9	1	6	7	—	1	1	5	12	17
Totals	13	15	28	1	8	9	2	1	3	16	24	40

TABLE 4

NATIVITY OF INCOMING PATIENTS

	First Admissions			Re-admissions			Transfers			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
British Columbia	—	1	1	—	1	1	—	—	—	—	2	2
Alberta	11	13	24	1	6	7	2	1	3	14	20	34
Saskatchewan	1	1	2	—	—	—	—	—	—	1	1	2
England	1	—	1	—	—	—	—	—	—	1	—	1
Unknown	—	—	—	—	1	1	—	—	—	—	1	1
Totals	13	15	28	1	8	9	2	1	3	16	24	40

TABLE 5
AGE OF ADMISSIONS CLASSIFIED WITH REFERENCE TO MENTAL STATUS

	M. F. T.			Re-admissions			Transfers			Totals		
	First Admissions			M.	F.	T.	M.	F.	T.	M.	F.	T.
1- 4 .....	...	1	1	...	...	...	...	...	...	...	1	1
5- 9	3	6	9	...	...	...	1	...	1	4	6	10
10-14	10	4	14	...	...	...	...	1	1	10	5	15
15-19 .....	...	4	4	1	3	4	1	...	1	2	7	9
20-24 .....	...	...	...	...	2	2	...	...	...	...	2	2
25-29 .....	...	...	...	...	2	2	...	...	...	...	2	2
35-39 .....	...	...	...	...	1	1	...	...	...	...	1	1
Totals	13	15	28	1	8	9	2	1	3	16	24	40

TABLE 6
OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS
CHRONOLOGICAL AGE, YEARS IN RESIDENCE

DISCHARGES:											
Age Group		Idiot		Imbecile		Moron		Condition on discharge		Years in residence	
		M.	F.	T.	M.	F.	T.	M.	F.	T.	
5- 9	1	.....	1	.....	.....	.....	4/0
10-14	1	.....	1	...../2
					1	.....	1	.....	.....	.....	...../3
					1	1	2/2
					1	.....	1	1/5
					1	.....	1	1/2
		1	.....	1	.....	.....	.....	.....	.....	.....	...../1
					1	.....	1	3/4
15-19	1	.....	1	8/6
					1	1	1/3
					1	1	3/0
					1	.....	1	8/0
					1	1	2/9
					1	.....	1	4/0
					1	1	4/3
					1	1	...../11
					1	1	4/3
					1	.....	1	2/5
					1	.....	1	5/9
					1	1	3/5
					1	1	4/9
					1	.....	1	8/1
					1	1	3/8
					1	1	...../1
20-24	1	1	4/0
					1	1	21/5
					1	1	3/3
					1	1	15/3
25-29	1	1	3/3
30-34	1	1	.....	.....	.....	18/11
					16/11
40-44	1	1	.....	.....	.....	25/9
TRANSFERS:											
20-24	1	1	2/4
					1	.....	1	.....	.....	.....	12/2
25-29	1	.....	1	7/2
40-45	1	1	.....	.....	.....	20/7
					1	1	.....	.....	.....	19/4
Totals	1	.....	1	4	4	8	11	18	28	248/0

TABLE 7
DEATHS CLASSIFIED WITH REFERENCE TO CAUSE OF DEATH, AGE GROUP,
MENTAL STATUS, YEARS IN RESIDENCE

Cause of Death	Age Group	Idiot			Imbecile			Years in residence
Status Epilepticus	5- 9	...	1	1	...	...	...	1/7
Pneumonia .....		...	1	1	...	...	...	1/2
Influenza:								
Respiratory	14-14	1	...	1	...	...	...	7/11
Respiratory and Abdominal		1	...	1	...	...	...	7/10
Bronchopneumonia	15-19	1	...	1	...	...	...	8/0
Pneumonia	20-24	1	...	1	...	...	...	16/0
Inanition due to Psychosis	30-34	1	...	1	...	...	...	18/0
Cerebral Pressure .....		...	...	...	1	...	1	23/4
		5	2	7	1	...	1	83/10

TABLE 8
STAFF—DECEMBER 31, 1949

	Male	Female	Total
MEDICAL SUPERINTENDENT	1	....	1
Medical Assistant .....	....	....	....
Teachers:			
Grade (Normal Graduate) .....	....	1	1
Sense Training .....	....	1	1
Occupational Therapist .....	....	1	1
Gym Instructress .....	....	....	....
BUSINESS SUPERINTENDENT	1	....	1
Clerk/Assistant .....	....	1	1
Medical Secretary .....	....	1	1
Stenographer .....	....	1	1
Bookkeeper/Stenographer .....	....	1	1
Clerk/Storekeeper	1	..	1
Kitchen Staff .....	....	5	5
Dining Room Staff .....	....	4	4
Laundry Staff .....	....	4	4
Sewing Room Staff .....	....	3	3
Gardener	1	....	1
Farmer and Farm Help	2	....	2
Dairyman	1	....	1
MATRON, S.R.N. Eng. ....	....	1	1
Assistant Matron, Acting only, M.D.G. ....	....	1	1
Surgery Nurse, R.N.	1	....	1
Night Supervisors, M.D.G. ....	....	2	2
Attendants and Ward Aides:			
Approved	7	5	12
Student	4	24	28
Non-student	8	5	13
General Maids .....	....	1	1
Farm Dormitory	2	1	3
Extra Assistance	3	....	3
SHORTAGES:			
Gym Instructress .....	....	1	1
Kitchen Maid .....	....	1	1
General Maid .....	....	1	1
Ward Aide .....	....	1	1
PUBLIC WORKS:			
Boiler Room Staff	6	....	6
Maintenance Staff	5	....	5
Night Watchman	1	....	1
EMPLOYED UNDER DOMINION HEALTH PROGRAMME:			
Educational Psychologist	1	....	1
Teachers, Grade (Graduates) .....	....	2	2
Dentist (part time)	1	....	1
Total number of Employees	46	65	111

ROSEHAVEN, CAMROSE

Movements of Residents.

On January 1, 1949, there were 183 residents at Rosehaven—102 were men and 81 women. In residence on December 31, 1949, there was a total of 202—111 men and 91 women.

Admissions to Rosehaven were as follows: 9 from P.rovincial Mental Institute, Edmonton, 3 from Provincial Mental Hospital, Ponoka, 3 returned from leave of absence, making a total of 30 admissions in 1949.

There were four discharges to other institutions, four discharged on leave of absence, and 16 deaths in 1949, making a total of 24 deaths and discharges.

One resident remained on leave of absence throughout the year.

Accidents and Elopements.

During the year 1949 there were only six accidents requiring medical attention; three of these resulted in fractures, the other three lacerations requiring suturing. There was one elopement, the resident being easily returned to the institution.

General Health.

The general health of the residents has been fairly good considering the age group of these individuals. Physical examination and psychiatric evaluation was made on each resident by Dr. Margaret McWilliam. A chest plate, by the Mobile T.B. Clinic Survey was taken of each resident. Attention was given to recommendations made in these surveys wherever possible.

Medical attention was supplied by local physicians as the need arose. Seven residents required hospitalization at St. Mary's for surgery, plaster cast application and blood transfusion. In addition, a total of 12 X-ray plates were done as well as 24 laboratory tests.

Dentistry.

Emergency dental work was done by a local dentist.

Occupational Therapy.

A small group of female residents participated in needlework classes. A bazaar was held in November, at which their needlework was sold.

A group of 10-20 men assisted with garden work in the grounds.

Some 25 individuals helped in various departments, and another group of about 20 assist with light housekeeping duties.

Religious Services.

Protestant Church services were arranged by the Ministerial Association of Camrose for each Sunday. Roman Catholic mass was conducted every other month.

Recreation and Entertainment.

Two parties for the resident population were held, one at Easter and one at Christmas time.

A selected group of residents were taken for car rides by the ladies of the Hospital Guild of Camrose on two occasions.

Recreation and Entertainment.

Walking parties and lawn groups were taken out whenever weather permitted.

Garden and Grounds.

Many improvements to the gardens and grounds were undertaken this year. A small vegetable garden supplied early vegetables in season, and the flower beds were kept in good condition. A small greenhouse was completed late in the fall which should prove an asset for another year.

Staff.

Various changes took place in the staff personnel. There was no shortage at any time, and relief workers were easily obtainable for the vacation period.

General health of staff has been satisfactory. All female and male attendants were given a physical examination and each had a chest X-ray.

Visitors.

Visits were made to Rosehaven by Dr. R. R. MacLean, Director, Division of Mental Health, Province of Alberta, at intervals throughout the year.

The Eugenics Board, as a Visiting Committee, visited in the fall. Relatives and friends, as well as various church groups, visited from time to time.

TABLE 1
MOVEMENT OF POPULATION DURING 1949

	Male	Female	Total	Male	Female	Total
In Residence January 1, 1949	102	81	183			
ADMISSIONS:						
(a) From P.M.H., Ponoka	15	15	30			
(b) From P.M.I., Edmonton	5	4	9			
(c) From P.A.H., Claresholm .....	....	....	....
(d) From P.A.H., Raymond .....	..	....	....
(e) Returned from L.O.A.	2	2	4			
	—	—	—	22	21	43
DISCHARGED DURING YEAR:				124	102	226
(a) To P.M.H., Ponoka						
(b) To P.M.I., Edmonton	1	2	3			
(c) On L.O.A.	1	....	1			
(d) Deaths	1	3	4			
(e) Eloped	10	6	16			
	....	....	....	13	11	24
	—	—	—	—	—	—
In residence as at December, 1949	111	91	202			

TABLE 2
SHOWING THE PSYCHOSES OF PATIENTS IN RESIDENCE, 1949

	Total
01 Psychoses with syphilitic meneingoencephalitis (general paresis)	3
02 Psychoses with other forms of sypihilis of the central nervous system	1
03 Psychoses with epidemic encephalitis	1
08 Psychoses with cerebral arteriosclerosis	38
10 Psychoses with convulsive disorders	2
11 Senile Psychoses:	
111 Simple deterioration	37
112 Presbyphrenic type	3
113 Delirious and confused types	2
114 Depressed and agitated types	3
115 Paranoid types	20
12 Involutional Psychoses:	
121 Melancholia	2
17 Manic-depressive Psychoses:	
171 Manic type	6
172 Depressive type	8
18 Dementia Praecox (Schizophrenia):	
181 Simple type	2
182 Hebephrenic type	2
183 Catatonic type	18
184 Paranoid type	22
19 Paranoia and Paranoid Conditions:	
192 Paranoid conditions	25
21 Psychoses with mental deficiency	5
22 Undiagnosed Psychoses	1
23 Without Psychoses:	
234 Mental deficiency	3

TABLE 3
RECORD OF DEATHS DURING 1949

Register No.	Sex	Age	Time in Ment. Inst.			Cause of Death
			Years	Months	Days	
80	M	81	3	4	21	Bronchopneumonia due to senility.
10	F	73	8	11	17	Cerebral embolism.
197	M	75	....	6	1	Angina pectoris.
119	M	76	23	9	8	Leukaemia.
64	F	75	2	6	8	Hypostatic pneumonia, senility.
113	M	73	1	1	19	Bronchopneumonia.
217	M	89	....	2	20	Pneumonia.
67	F	75	1	7	13	Bronchopneumonia, myocarditis.
53	M	83	16	9	5	Uraemia, cerebral arteriosclorises.
198	F	73	....	11	27	Congestive failure due to bronchopneumonia.
120	M	75	7	....	8	Gastric carcinoma.
116	M	76	6	3	24	Bronchopneumonia, arteriosclerotic heart.
230	M	84	....	4	11	Bronchopneumonia.
55	M	84	11	6	21	Congestive heart failure, auricular fibrillation, Arteriosclerotic heart disease.
18	F	77	17	8	23	Carcinoma thyroid.
22	F	72	3	2	7	Bronchopneumonia, hypertension.

TABLE 4

CLASSIFICATION OF DEATHS ACCORDING TO PSYCHIATRIC DIAGNOSIS FOR 1949

Register No.		Cause of Death
84	Male	Senile psychoses, simple.
10	Female	Senile psychoses, simple.
197	Male	Psychosis with arteriosclerosis.
119	Male	Paranoid condition.
64	Female	Senile psychoses, simple.
113	Male	Psychosis with arteriosclerosis.
217	Male	Senile psychoses, simple.
67	Female	Psychosis with arteriosclerosis.
53	Male	Manic-depressive, manic.
198	Female	Senile psychosis, presbyphrenic.
120	Male	Psychoses with syphilitic meningo-encephalitis.
116	Male	Paranoid, on defective basis.
230	Male	Senile psychosis, simple.
55	Male	Senile psychoses, simple.
18	Female	Manic-depressive, manic.
22	Female	Psychosis with arteriosclerosis.

Guidance Clinics

The Provincial Guidance Clinics services again were further expanded during 1949. Of particular note was the re-inauguration of the Clinic Services to the Peace River area. The clinics to this section of the Province had been discontinued during the late war, and plans for holding the clinics in 1948 had to be abandoned because of the Poliomyelitis epidemic. The Edmonton Clinic staff, accompanied by the Director, conducted the clinics in 1949. They were held in key points in the area, as will be seen from the statistical and other reports of the Edmonton Clinic. There was general expression of appreciation of the return of the clinics in the Peace River area by the medical profession, Department of Education officials, and others affected by them. It was obvious from observation and the reports of various interested parties that a great many cases in this area were in need of attention, it being felt that two clinics a year at least would be necessary to handle the situation.

In November, the second annual Clinic Staff Conference was held at the Provincial Mental Hospital, Ponoka, the Director presiding. This conference was attended also by the medical superintendents of the various institutions and other staff members from these who were in some way or other affected by the work of the clinics. Much valuable information of a scientific and administrative nature was exchanged at the conference.

The members of the clinic staff continue to participate in general public education activities. Included among these activities were talks to community groups, round table talks, preparation of radio programmes, and assistance to local institutes and discussion groups.

The major portion of the clinic work was done with children, emphasis being placed on the preventive aspects of mental disease and instability.

Financial assistance from the National Health Grant was again received and was particularly applicable in the case of the Edmonton Clinic.

The intimate details of the activities of the various clinics appear in the reports which follow this general comment. It will be noted by the statistical tables that some 1,483 cases were handled in 1949 as compared with 1,143 seen during the previous year. There continues to be a great demand for clinic services, not only in the areas now served, but in those areas not already included in the clinic programme.

Edmonton and District Guidance Clinics.

During 1949, it was possible to do a considerable amount of treatment of patients, particularly in the City of Edmonton, because of the change to new and more adequate offices in the Health Guidance Building, 10523 100 Avenue. This transfer of location took place in August, shortly after Mr. E. J. Kibblewhite, Chief Clinic Psychologist, was transferred from Ponoka to Edmonton and his

presence has strengthened the clinic team; although heavy demands are made on his time for clinics outside the Edmonton area.

There were 767 new patients examined, and the total work load was 4,477; 12.5% of patients were referred by medical practitioners; 10.5% of patients were referred by themselves; 45.4% of patients were referred by school agencies; 30.3% of patients were referred by community agencies including Child Welfare Department, Children's Aid Department, Edmonton, and other work agencies.

Clinics were held in the Peace River District for the first time since 1938. New clinics were established in Stony Plain, Two Hills, Westlock. Clinics at Athabasca, Lac La Biche, St. Paul, Bonnyville and Smoky Lake were attended by Dr. M. Gish, from the Provincial Mental Institute, Edmonton.

Edmonton City—Approximately one-third of the time of the clinic is available to the residents of the City of Edmonton, and appointments are made on days that the clinic team are not travelling. During the year, 264 new cases were examined and the total work load increased to 2,394.

Edmonton Rural Clinics—These clinics are held in city offices; but appointments are made through the Edmonton Rural Health Unit staff and their excellent co-operation is greatly appreciated. Ten clinics were held; 70 new cases were examined, and a considerable amount of re-examination and follow-up work was done. The total work load was 318.

Barrhead—Five clinics were held in co-operation with the Public Health Nurse and the School Superintendent; 33 new cases were examined. Total work load was 124.

Camrose—Eight clinics were held and 23 new cases were examined.

Holden—Five clinics were held; 21 new cases were examined. Total work load was 118.

Lamont—Five clinics were held; 21 new cases were examined. Total work load was 112.

Stony Plain—One clinic was held; 7 new cases were examined.

Two Hills—Two clinics were held; 8 new cases were examined.

Vegreville—Seven clinics were held; 30 new cases were examined. Total work load was 142.

Vermilion—Ten clinics were held; 54 new cases were examined. Total work load was 226.

Wainwright—Four clinics were held; 24 new cases were examined. Total work load was 95.

Wetaskiwin—Eight clinics were held; 73 new cases were examined. Total work load was 287.

Westlock—One clinic was held; 5 new cases were examined.

We extend our sincere thanks to the Department of Public Health staff in the various centres and to the School Superintendents, members of the medical profession, and others who helped to make this, the first year of full-time clinic service, a success.

Calgary and District Guidance Clinics.

During the year the Provincial Guidance Clinic continued to operate in the City of Calgary and to conduct various clinics in the southern part of the Province. The clinics were conducted in 1949 under the supervision of Dr. G. D. Arson. Mr. R. E. Pettifor continued as the Psychologist for the clinic. Mrs. Barbara Baker carried on her duties as stenographer-receptionist during the year in her usual capable fashion.

There were a number of staff changes during the year. Miss Kay Lind left the service on March 10th and Mrs. Lois Alger left the service on March 31st.

Mrs. Mignon Donovan joined the staff on May 9th. She had been formerly employed with the Guidance Services in British Columbia. Miss Patricia Ford joined the staff on May 23rd, bringing the clinic up to full strength again. Miss Ford is also from British Columbia. Both Mrs. Donovan and Miss Ford are graduates of the University of British Columbia. They are on the clinic staff in the capacity of Psychiatric Social Workers.

No new clinic points were opened up during the year, but the clinic continued to visit all the previously established points regularly.

During the year a total of 580 new cases were seen. The total of new cases seen in the Calgary area since the beginning of the clinics in 1929 is 4,355, up to the end of 1949. Of these, 1,264 have been seen since the opening of the clinics on a full-time basis two years ago.

The total work load for the year was 3,246, which roughly approximates the work load during 1948. This was divided up as follows: 1,378 patient contacts, 1,193 collateral contacts, 162 general contacts, and 514 psychometric examinations. The distribution of the work for the various clinics is indicated below.

Calgary Clinic—There were 206 new cases seen from the City of Calgary itself. Of these 25% were referred from private doctors, 25% from the schools, and 25% from community agencies.

During the year the clinic worked closely with the various community agencies, namely, the Guidance Workers of the Calgary School System, The Children's Aid Department of the City of Calgary, The Wood's Christian Home, The Booth Memorial Home and the Mountview Social Service Home. A number of talks were given to various community agencies.

Calgary Rural—A total of six Calgary Rural Clinics were held, with a total of 10 new patients being seen.

Medicine Hat—A total of 125 new new cases were seen in the City of Medicine Hat. Two days each month were spent here as was done in 1948. One of these days was in the schools and one in the Public Health Clinic at the Courthouse. Miss M. Hagerman, the Public Health Nurse, has continued to be of great assistance to us in the arranging of appointments and so on. The school authorities continued to be very co-operative, notably Mr. C. E. Peasley, Senior Principal of the Elm Street School. A clinic was held at Suffield in March and at Hilda in October in co-operation with Mr. L. A. Walker, rural school superintendent.

Lethbridge—A total of 90 new patients were seen at Lethbridge. Clinics were held one day a month in the City School System and one day a month at the Nursing Mission in the City Hall. Mrs. Edith Evans, the Nurse-in-Charge of the Nursing Mission, has been particularly helpful to us in arranging appointments, etc. Several trips were made during the year to the Provincial Gaol to interview prisoners at the request of the Magistrate or the Warden.

Didsbury—Seven clinics were held at Didsbury, at which a total of 23 new patients were seen. The clinics were held in the offices of the Rosebud Health Unit.

High River—Seven clinics were held during the year at High River. Two of these were held in Black Diamond, one at Arrowwood and one at Vulcan, the balance being held in the Foothills Health Unit offices. A total of 34 new cases were seen.

Brooks—Five clinics were held during the year in the Brooks area. The clinic continued to be afforded the privilege of using the offices of the Eastern Irrigation District School Division. Miss Pat Newell, Public Health Nurse at Brooks, has been very helpful to us. A total of 28 new patients were seen at Brooks.

Claresholm—Four clinics were held during the year at Claresholm. A total of 14 new cases were seen. One of these clinics was held at Carmangay. Miss Kay Brandon, the Public Health Nurse, has assisted us greatly in arranging appointments, etc. We have been able to use the United Church Hall and the Town Offices in Claresholm for the clinics. This has been most convenient.

Crowsnest Pass—A total of five clinics were held in the Crowsnest Pass and 21 new cases were seen. The manager of the new Crowsnest Pass Hospital has been kind enough to permit us to hold clinics in the hospital.

Drumheller—A total of six clinics were held in Drumheller and a total of 23 new patients were seen during the year. The clinic was assisted greatly by the Public Health Unit in Drumheller.

Pincher Creek—Three clinics were held at Pincher Creek during the year and a total of six new cases were seen. Use was made of the offices so kindly offered to us by Drs. F. J. MacLean and L. B. Collins for our clinics. Miss Beryl Tiffen, Public Health Nurse, has given a good deal of help to us in arranging clinics, making home visits, and so on.

Public Relations.

Increasing interest has been expressed in the clinics, and requests were made to address quite a number of groups about the clinic work. A number of talks were given during the year.

During the year, 27 formal talks were given and 12 public health films were seen. Requests were received to give lectures on Psychiatry to the student nurses at the General Hospital in Calgary and the student nurses at the Medicine Hat Hospital. These are now being given. An arrangement has been made for groups of nurses from the senior class at the General Hospital to visit the clinic each week in connection with their orientation programme to various health services in the community.

Various visits have been made during the year to other agencies, and where possible we participated in their programmes.

Ponoka and Red Deer District Guidance Clinics.

Ponoka and Red Deer District embraces that territory between the area served on the north by Edmonton Regional Headquarters and in the south by the Calgary Regional Headquarters. It extends from just south of Wetaskiwin to just north of Didsbury. Clinics were held in this territory at Red Deer, Ponoka, Stettler, Rocky Mountain House, Castor and Lacombe about every two months, except that during the last four months of the year these were held monthly at Ponoka. Also, at Red Deer clinics were held on two afternoons a week beginning in October. Only one clinic was held at Lacombe in 1949, as this was a new centre opened in November.

The clinics in the Ponoka and Red Deer District are serviced from the Provincial Mental Hospital, Ponoka, and from the Provincial Training School, Red Deer. Dr. F. J. Edwards, Clinical Director for the Provincial Mental Hospital, attended the major number of clinics held. Dr. J. M. Byers, Assistant Medical Superintendent for the Provincial Mental Hospital, also attended several, as did Dr. G. O. Patten of the Provincial Mental Hospital staff. Dr. D. L. McCullough, Medical Superintendent of the Provincial Training School before his retirement attended a number of clinics, mainly at Red Deer and Rocky Mountain House. During the last four months of the year Dr. L. J. le Vann, newly appointed Medical Superintendent of the Provincial Training School, was in charge of the clinics held in Red Deer, assisted by Mr. A. W. Fraser, newly appointed Educational Psychologist on the Provincial Training School staff. Mr. R. N. Crawford, resident Psychiatric Social Worker at the Provincial Mental Hospital, assisted with most of the clinics held during the year. Mr. E. J. Kibblewhite, Chief Clinic Psychologist, attended all of the clinics held, except those held in November and December in Red Deer.

In all, 136 new cases were examined, 81 males and 55 females. This is more than twice the number of new cases seen during 1948, when 62 new cases were examined. The increase in new cases is accounted for by the fact that three new clinic centres were opened, at Castor, Lacombe and Rimbey. Also, additional service was given during the last three months of the year at Red Deer.

Attention should be drawn to the excellent co-operation and assistance given at the different clinics by the Health Unit staffs, and by the Superintendent of Schools and other school authorities. In Red Deer and Stettler the clinics are held in the Health Unit quarters, while in Castor, Lacombe and Ponoka quarters are provided in the School Division offices.

The kindness and co-operation of Dr. T. C. Michie, Medical Superintendent of the Provincial Mental Hospital, in making it possible for the members of his staff to assist with the clinics is very much appreciated.

The general statistics for Red Deer and District are given in the consolidated tables which follow.

TABLE 1
SUMMARY OF NEW CASES EXAMINED TREATMENT PERIODS, PSYCHOLOGICAL EXAMINATIONS AND INTERVIEWS

Location	M.	F.	T.	Pat.	Col.	Gen.	P.E.	Total Work Load	Total New Cases Since 1929
Edmonton and District	465	302	767	1273	1788	644	772	4477	.....
Calgary and District	317	263	580	1378	1193	161	514	3246	.....
Ponoka and Red Deer District	863	620	1483	156	265	15	118	554	.....
Totals	863	620	1483	2807	3246	820	1404	8277	8931

NOTES:

Edmonton and District includes all of the area served from Wetaskiwin north. It includes Clinics held in the Peace River-Grande Prairie area, and at such points as Athabasca, Barrhead, Bonnyville, Camrose, Holden, Lac La Biche, Lamont, Smoky Lake, St. Paul, Vegreville, Vermilion, Wainwright, Westlock, and Wetaskiwin.

Calgary and District includes the area served from Didsbury south. It includes Clinics held at such points are Claresholm, Crow's Nest Pass towns, Brooks, Didsbury, Drumheller, High River, Lethbridge, Medicine Hat, and Pincher Creek.

Ponoka and Red Deer District includes the area from Didsbury on the south to Wetaskiwin on the north. It includes Clinics at such points as Castor, Ponoka, Stettler, Rimbey, Rocky Mountain House, and Lacombe.

Pat.—Patient contacts including treatment periods.

Col.—Contacts with a patient's parents, or relatives, or others closely interested.

Gen.—General contacts regarding Clinic activities and work, including those with other Agencies and Community Services.

P.E.—Psychological tests and examinations.

Total New Cases—Due to re-arrangement of territory accurate figures by Districts are not available.

TABLE 2
AGE AND SEX CLASSIFICATION OF NEW CLINIC CASES, 1949

Age Group	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Total			Percentages		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0- 4	15	28	43	30	23	53	7	2	9	52	53	105	3.5	3.6	7.1
5- 9	192	77	269	120	55	175	29	17	46	341	149	490	23.0	10.0	33.0
10-14	173	92	265	86	49	135	31	18	49	290	159	449	19.5	10.7	30.2
15-19	59	54	113	25	35	60	8	7	15	92	96	188	6.4	6.5	12.9
20-24	6	11	17	11	18	29	1	2	3	18	31	49	1.2	2.1	3.3
25-29	4	10	14	8	16	24	....	1	1	12	27	39	0.8	1.8	2.6
30-34	2	13	15	3	14	17	3	3	6	8	30	38	0.5	2.0	2.5
35-39	4	7	11	9	15	24	....	3	3	13	25	38	0.9	1.7	2.6
40-44	4	3	7	1	4	5	1	....	1	6	7	13	0.4	0.5	0.9
45-49	2	3	5	10	7	17	....	1	1	12	11	23	0.8	0.7	1.5
50 and over	4	4	8	14	27	41	1	1	2	19	32	51	1.3	2.1	3.4
Unknown .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	465	302	767	317	263	580	81	55	136	863	620	1483	58.3	41.7	100.0

M—Male; F—Female; T—Total.

TABLE 3a
DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES—PRE-SCHOOL GROUP, 1949 (0 to 5 YEARS, 11 MONTHS)

Nature of Case	Edmonton and District			and District Calgary			Deer District Ponoka & Red			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problems with Adequate Intellect	2	3	5	1	1	2	....	....	....	3	4	7
Intellectual Inadequacy	7	19	26	11	14	25	3	1	4	21	34	55
Emotional Disorders	10	6	16	5	9	14	3	1	4	18	16	34
Thinking Disorders .....	....	....	....	1	....	1	....	....	....	1	....	1
Speech Disorders	1	4	5	10	2	12	1	....	1	12	6	18
Faulty Feeding Habits .....	....	....	....	1	....	1	....	....	....	1	....	1
Sleep Disturbances .....	....	2	2	....	....	....	....	....	....	....	2	2
Anti-Social Trends	1	....	1	6	....	6	....	....	....	7	....	7
Sexual Difficulties .....	....	1	1	1	....	1	....	....	....	1	1	2
Attack Disorders .....	....	....	....	2	....	2	....	....	....	2	....	2
Psychoneuroses .....	....	1	1	....	....	....	....	....	....	....	1	1
Psychoses .....	....	....	....	....	....	....	....	....	....	....	....	....
Non-Psychotic	1	1	2	1	....	1	....	....	....	2	1	3
Undiagnosed .....	....	....	....	1	2	3	....	....	....	1	2	3
Totals	22	37	59	40	28	68	7	2	9	69	67	136

M—Male; F—Female; T—Total.

TABLE 3b

DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES—PRE-SCHOOL GROUP, 1949
(6 YEARS TO 18 YEARS 11 MONTHS)

Nature of Case	Edmonton and District			M—Male; F—Female; T—Total. Calgary and District			Ponoka & Red Deer District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problems with Ade- quate Intellect	101	41	142	80	27	107	17	6	23	198	74	272
Intellectual Inadequacy	125	73	198	28	16	44	29	24	53	182	113	295
Emotional Disorders	72	43	115	30	37	67	11	6	17	113	86	199
Thinking Disorders	11	6	17	17	7	24	3	....	3	31	13	44
Speech Disorders	18	8	26	11	3	14	1	2	3	30	13	43
Faulty Feeding Habits .....	....	....	....	....	....	....	....	....	....	....	....	....
Sleep Disturbances	1	2	3	....	1	1	....	....	....	1	3	4
Anti-Social Trends	49	13	62	36	12	48	3	1	4	88	26	114
Sexual Difficulties	5	3	8	5	9	14	....	1	1	10	13	23
Attack Disorders	9	2	11	4	4	8	....	....	....	13	6	19
Psychoneuroses	10	7	11	5	10	15	....	....	....	15	17	32
Psychoses	4	5	9	....	....	....	....	....	....	4	5	9
Non-Psychotic	6	6	12	1	....	1	1	....	1	8	6	14
Undiagnosed	3	....	3	4	5	9	3	....	3	10	5	15
Totals	414	209	623	221	131	352	68	40	108	703	380	1083

M—Male; F—Female; T—Total.

TABLE 3c

DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES—PRE-SCHOOL GROUP, 1949
(19 YEARS AND OVER)

Nature of Case	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problems with Ade- quate Intellect	4	2	6	1	....	1	....	....	....	5	2	7
Intellectual Inadequacy .....	....	2	2	2	6	8	1	4	5	9	18	27
Emotional Disorders .....	....	2	2	3	11	14	1	....	1	4	13	17
Thinking Disorders	5	11	16	2	6	8	....	....	....	7	17	24
Speech Disorders .....	....	....	....	....	....	....	....	....	....	....	....	....
Faulty Feeding Habits .....	....	....	....	....	....	....	....	....	....	....	....	....
Sleep Disturbances .....	....	....	....	....	....	....	....	....	....	....	....	....
Anti-Social Trends .....	....	....	....	....	....	....	....	....	....	....	....	....
Sexual Difficulties .....	....	....	....	3	3	6	....	....	....	3	3	6
Attack Disorders	2	2	4	1	1	2	....	....	....	3	3	6
Psychoneuroses	6	15	21	12	39	51	2	7	9	20	61	81
Psychoses	3	12	15	18	28	46	1	2	3	22	42	64
Non-Psychotic	2	4	6	7	5	12	1	....	1	10	9	19
Undiagnosed	1	....	1	7	5	12	....	....	....	8	5	13
Totals: Table 3c	29	56	85	56	104	160	6	13	19	91	173	264
Table 3b	414	209	623	221	131	352	68	40	108	703	380	1083
Table 3a	22	37	59	40	28	68	7	2	9	69	*7	136
Grand Totals	465	302	767	317	263	580	81	55	136	863	620	1483

M—Male; F—Female; T—Total.

TABLE 4

SOURCES REFERRING NEW CASES TO CLINICS, 1949

Sources	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
From Mental Hospitals (1)	5	4	9	1	2	3	2	2	4	8	8	16
From General Hospitals	5	5	10	....	2	2	....	....	....	5	7	12
From Private Doctors	38	48	86	68	112	180	11	20	31	117	180	297
From Factory Doctors .....	....	....	....	....	....	....	....	....	....	....	....	....
From Courts .....	....	....	....	13	....	13	....	....	....	13	....	13
From Schools	239	109	348	155	65	220	51	24	75	445	198	643
From Community Agencies (2) ..	123	83	206	51	57	108	9	5	14	183	145	328
Attended Voluntarily	43	38	81	20	18	38	4	1	5	67	57	124
From all other sources	12	15	27	9	7	16	4	3	7	25	25	50
Totals	465	302	767	317	263	580	81	55	136	863	620	1483

NOTES: (1) Includes referrals from all Mental Institutions.

(2) Includes referrals from Health Units, Child Welfare and Children's Aid.

M—Male; F—Female; T—Total.

TABLE 5
MAJOR RECOMMENDATIONS (DISPOSALS) MADE IN REGARD TO NEW CLINIC
CASES, 1949

Disposal	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
To Mental Hospitals (1)	40	26	66	23	39	62	5	6	11	68	71	139
To Psychiatric Hospitals or Psy- chiatric Wards in General Hospitals .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
To Convalescent or Nursing Homes (2)	4	5	9	13	7	20	.....	.....	.....	17	12	29
Reported to Hospital Consultant or Private Doctor	9	17	26	10	18	28	3	10	13	22	45	67
Reported to Community Agencies	39	49	88	12	18	30	5	4	9	56	71	127
Advice to Parents or Relatives..	366	203	569	248	167	415	62	32	94	676	402	1078
Other Methods	7	2	9	11	14	25	6	3	9	24	19	43
Totals	465	302	767	317	263	580	81	55	136	863	620	1483

NOTES: (1) Includes recommendations for admission to the Provincial Training School, Red Deer.
(2) Includes recommendations for Foster Home placement, and Special Class placement.
M—Male; F—Female; T—Total.

TABLE 6
SUMMARY OF NUMBER OF MENTAL DEFECTIVES EXAMINED BY YEARS, 1949

Year	I.Q.: 0 to 25 Probably Idiots		I.Q.: 26 to 50 Probably Imbeciles		I.Q.: 51 to 75 Probably Morons		I.Q. Unknown but Mental Deficiency Indicated		Totals		Percentage of New Cases	Cumulative Totals	
Number of Mental Defectives examined to 1939 (based in part on estimates)											31.4%	1052	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.		
1939	5	3	19	24	46	46	....	....	70	73	143	35.5%	1195
1940	3	4	20	14	39	19	16	15	78	52	130	36.5%	1325
1941	3	2	23	16	43	25	13	8	82	51	133	38.7%	1458
1942	6	8	18	15	34	16	3	2	61	41	102	32.9%	1560
1943	6	12	17	11	15	14	3	7	41	44	85	40.1%	1645
1944	6	5	16	19	26	30	10	7	58	61	119	44.6%	1764
1945	6	6	15	11	32	24	4	5	57	46	103	40.7%	1867
1946	2	2	16	13	40	43	9	9	67	67	134	40.6%	2001
1947	3	1	28	14	77	48	19	14	127	77	204	41.9%	2205
1948	6	8	34	33	86	47	24	12	150	100	250	21.9%	2455
1949	3	4	27	29	54	63	9	7	93	103	196	13.2%	2651

M—Male; F—Female; T—Total.

M—Male; F—Female; T—Total.

The Eugenics Board

J. M. MACEachran, M.A., Ph.D., Chairman.

The Eugenics Board held eight meetings during 1949 for the consideration of cases. Five meetings were held at the Provincial Mental Hospital, Ponoka, two were held at the Provincial Training School, Red Deer, and one was held at the Provincial Guidance Clinic, Edmonton, on the dates given below:

- 27 January, 1949—Provincial Mental Hospital, Ponoka.
- 27 January, 1949—Provincial Training School, Red Deer.
- 31 March, 1949—Provincial Mental Hospital, Ponoka.
- 31 March, 1949—Provincial Training School, Red Deer.
- 1 April, 1949—Provincial Guidance Clinic, Edmonton.
- 9 June, 1949—Provincial Mental Hospital, Ponoka.
- 8 September, 1949—Provincial Mental Hospital, Ponoka.
- 17 November, 1949—Provincial Mental Hospital, Ponoka.

Cases Presented.

The Board considered 116 cases, of which number one had been passed previously, but was reviewed at the request of Provincial Mental Hospital authorities. Six cases were deferred for future consideration. One of these was represented at a later meeting at which time it was passed. Of the 109 cases passed by the Board, 52 were males and 57 females. Most of these were passed subject to the consent of the patient, or parent or guardian, or to both patient and parent or guardian.

Of the 109 cases passed by the Board during the year, 31 had been first examined at a Provincial Guidance Clinic, although some of these had been institutionalized before presentation. This group of 31 cases was made up of 8 male and 23 female cases.

Operations.

Operations were performed on 47 cases during the year, 20 male and 27 female. All the operations were performed at the Provincial Mental Hospital, Ponoka.

Of the 47 cases operated upon during the year, 45 had been presented and passed during 1949, one had been presented and passed in 1940, and one in 1948.

The operations were all performed by one of the surgical consultants, Dr. J. W. Richardson of Calgary, or by Dr. J. Ross Vant, or Dr. R. H. Horner of Edmonton.

Board Member Changes.

Following the death of Dr. E. L. Pope in November, 1949, a Board meeting was held at the Provincial Mental Hospital, Ponoka, at which time the following resolution was presented by Dr. E. R. Selby: "Since the last meeting of the Board the much regretted death of Dr. Egerton R. Pope has removed from its councils one of its original and most valued members. The Act under which the Eugenics Board was constituted called for the complete confidence of the public in those who assumed the responsibility for its administration. No one could have contributed more than the late

Dr. Pope in the way of establishing that confidence. As a man of high personal and professional distinction he was widely known and highly respected, not only in this Province, but throughout Canada. His membership on the Board did much to bring to its functioning that good will and co-operation of the medical profession of the Province which was so essential for accomplishing the aims of the Act. We shall greatly miss him for the wisdom of his counsel and the integrity of his judgment which he always displayed in our deliberations, but we will always cherish kindly memories of his humanitarian spirit, his genial companionship and his warm friendship."

The vacancy on the Board caused by Dr. Pope's death had not been filled by the end of 1949.

Staff Changes.

Due to pressure of other duties, Mr. E. J. Kibblewhite submitted his resignation as Secretary to the Board, effective as of May 31st, 1949. This was accepted with great regret, and the Board wishes to acknowledge the very valuable services of Mr. Kibblewhite in preparing case reports, keeping accurate minutes of the meetings of the Board, and in preparing the Annual Reports.

Mrs. E. S. James, who had assisted Mr. Kibblewhite for some years, was appointed to serve as Secretary upon Mr. Kibblewhite's resignation.

Appreciation.

The Eugenics Board wishes to express its appreciation and thanks to Dr. R. R. MacLean, Director, Division of Mental Health, to Dr. T. C. Michie, Medical Superintendent, Provincial Mental Hospital, and to Dr. D. L. McCullough, who was the Medical Superintendent at the Provincial Training School, Red Deer, until his retirement in June, 1949, and to Dr. L. J. le Vann, who succeeded Dr. McCullough, as well as their respective staffs, for their co-operation in connection with the work of the Eugenics Board.

A tabular summary of the work of the Eugenics Board to December 31st, 1949, is appended.

A tabular summary of the work of the Eugenics Board to December 31st, 1948, is appended.

CASES PRESENTED AND PASSED
(To December 31, 1949)

	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929-1933	87	201	288	87	201	288
1934-1938	557	438	995	644	639	1283
1939-1943	339	299	638	983	938	1921
1944	56	73	129	1039	1011	2050
1945	54	64	118	1093	1075	2168
1946	52	53	105	1145	1128	2273
1947	38	53	91	1183	1181	2364
1948	37	68	105	1220	1240	2469
1949	52	57	109	1272	1306	2578

OPERATIONS ONLY
(To December 31, 1949)

	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929-1933	48	158	206	48	158	206
1934-1938	198	240	438	246	398	644
1939-1943	13	27	40	381	576	957
1944	18	29	47	399	605	1004
1945	24	31	55	423	636	1059
1946	122	151	273	368	549	917
1947	16	15	31	439	651	1090
1948	16	22	38	455	673	1128
1949	20	27	47	475	700	1175

ANNUAL REPORT
OF THE
Vital Statistics Branch
OF THE
DEPARTMENT OF PUBLIC HEALTH
PROVINCE OF ALBERTA
1949

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Vital Statistics Division

(ARTHUR PACKFORD, *Deputy Registrar General*)

The Report of the Vital Statistics Division for the year 1949 shows a slight increase in the birth rate and a small decrease in the marriage and death rates.

The death rates for maternal mortality and infantile mortality were also less than the preceding year.

The death rates for diphtheria, measles and influenza show an increase, but there was a considerable decrease in the rates from the other communicable diseases.

Deaths from diseases of the heart again show a considerable increase, but there was a slight drop in the number of deaths from cancer.

Violent and accidental deaths show a small increase over the previous year.

POPULATION

The population of the Province of Alberta for the year 1949 has been estimated by the Dominion Bureau of Statistics as 871,000, an increase of 25,000, and all rates in this report are based on that figure.

BIRTHS

The number of children born to residents of Alberta, numbered 24,935. The rate being 28.7 per 1,000 population. This is the highest number of births ever recorded in the Province—860 more than in the previous year and an increase in the rate of .2. Indian births numbered 1,235. Of the total births, 12,783 were males and 12,152 were females, the ratio being 1,051 males to each 1,000 females. There were 334 twin births and one case of triplets. Illegitimate births numbered 1,224, being two more than the preceding year; the rate being 4.9 per cent of all live births.

The number of children born to residents of cities and towns of 1,000 population and over was 10,591, and to rural residents 14,344. The number of births to residents of the four large cities were as follows: Edmonton, 4,353; Calgary, 3,143; Lethbridge, 558; and Medicine Hat, 436. The actual number of births in these cities were: Edmonton, 6,556; Calgary, 4,068; Lethbridge, 1,033; and Medicine Hat, 724.

For purposes of comparison the following are the birth rates for Canada, the Provinces, Great Britain and certain other countries for the year 1949:

BIRTH RATES			
Canada	26.9	New Zealand	24.9
Prince Edward Island	30.1	Australia	22.9
Nova Scotia	27.5	United States	24.0
New Brunswick	32.4	Austria	15.8
Quebec	30.0	France	21.0
Ontario	24.2	Belgium	17.2
Manitoba	24.8	Denmark	18.9
Saskatchewan	25.2	Italy	20.0
Alberta	28.7	Netherlands	23.7
British Columbia	24.6	Norway	19.6
England and Wales	16.7	Sweden	17.4
Scotland	18.5	Portugal	25.0
Northern Ireland	21.4	Spain	21.4
Eire	21.4	Switzerland	18.4

MARRIAGES

There were 9,037 marriages registered during the year. This is 193 more than the previous year, and 692 more than the average for the five preceding years. The rate per 1,000 population being 10.4. The rate for 1948 was 10.5. Of the bridegrooms, 97 were 18 years of age or under, and 199 of the brides were 16 years of age or under; 2,206 of the brides were 17 to 19 years of age and 3,805 were 20 to 24 years of age. Of the bridegrooms, 89.5 per cent were bachelors, 5.2 were widowers and 5.4 were divorcees. Of the brides, 89.1 per cent were spinsters, 5.7 were widows and 5.2 were divorced. There were 213 bridegrooms and 91 brides 60 years of age and over, and of these, seven of the brides were over 75. Five of the grooms were over 80.

The following are the marriage rates for Canada, the Provinces, Great Britain and certain other countries for 1949:

MARRIAGE RATES

Canada	9.2	New Zealand	9.5
Prince Edward Island	6.6	Australia	9.2
Nova Scotia	7.8	United States	10.7
New Brunswick	8.2	Austria	9.7
Quebec	8.6	France	8.2
Ontario	9.8	Belgium	8.5
Manitoba	9.3	Denmark	8.4
Saskatchewan	8.2	Italy	7.6
Alberta	10.4	Netherlands	8.3
British Columbia	10.2	Norway	8.4
England and Wales	8.5	Sweden	7.8
Scotland	8.1	Portugal	7.7
Northern Ireland	6.8	Spain	7.0
Eire	5.4	Switzerland	8.0

DIVORCES

The final Decrees of Divorce granted during the year numbered 594; this being 65 less than the previous year and 121 less than the average for the preceding 5 years. Of the divorces, 262 were granted to husbands and 332 to wives. Two decrees of nullity were also granted.

DEATHS

Deaths registered during the year numbered 7,083; 415 of these being Indians. Male deaths numbered 4,350 and females 2,733. There were 96 more deaths than the previous year, and 502 more than the average for the 5 preceding years. The death rate per 1,000 population being 8.2. The rate for 1948 was 8.3. At the time of death, 609 males and 457 females were over 80 years of age, and 4 males were 100 years of age and over. The number of deaths of residents of the four large cities were as follows: Edmonton, 990; Calgary, 1,141; Lethbridge, 175; and Medicine Hat, 158. The number of deaths which occurred in these cities were as follows: Edmonton, 1,500; Calgary, 1,340; Lethbridge, 235 and Medicine Hat, 185.

Diseases of the heart, the chief cause of death, again showed a considerable increase. The number of deaths being 2,033 as compared with 1,896 the previous year, the rates being 233.4 per 100,000 population, and 224.1 for 1948.

Cancer deaths numbered 957, the number of the previous year being 975, the rates being 109.9 and 115.2 respectively.

Deaths from tuberculosis, all forms, numbered 211; of these, 105 were Indians. Of these deaths, 156 were due to tuberculosis of the respiratory system, of which 78 were Indians. The death rate

for tuberculosis, all forms, was 24.2 and for pulmonary tuberculosis 17.9, compared with the previous year rates of 30.6 and 23.6.

Deaths from pneumonia numbered 376, 14 more than the previous year, and there were 41 deaths from influenza.

Nine deaths were due to poliomyelitis. The epidemic the previous year caused 28 deaths.

Violent deaths numbered 680, an increase of 3. Motor vehicle accidents caused 164 deaths, 35 more than the previous year. Street car and other road accidents 5, railway accidents 23, agriculture and forestry accidents 47, and 44 deaths were due to accidental drowning.

There were 80 suicides, 4 less than the previous year, and 15 deaths due to homicide.

The following are the death rates for Canada, the Provinces and certain other countries for the year 1949:

DEATH RATES

Canada	9.2	New Zealand	9.1
Prince Edward Island	9.9	Australia	9.5
Nova Scotia	9.3	United States	9.7
New Brunswick	9.5	Austria	12.6
Quebec	8.8	France	13.8
Ontario	9.8	Belgium	12.9
Manitoba	8.9	Denmark	8.9
Saskatchewan	7.7	Italy	10.6
Alberta	8.2	Netherlands	8.1
British Columbia	10.2	Norway	8.8
England and Wales	11.7	Sweden	9.9
Scotland	12.3	Portugal	13.8
Northern Ireland	11.5	Spain	11.4
Eire	12.7	Switzerland	10.7

MATERNAL MORTALITY

There was a decrease in maternal mortality. The number of deaths due to puerperal causes being 25, as compared with 29 the previous year. The rates being 1.0 and 1.2 respectively.

MATERNAL MORTALITY RATES PER 1,000 LIVE BIRTHS

Canada	1.4	British Columbia	1.0
Prince Edward Island	0.4	Scotland	1.3
Nova Scotia	1.1	Northern Ireland	1.3
New Brunswick	1.0	Eire	1.7
Quebec	2.0	France	0.9
Ontario	1.3	Netherlands	1.1
Manitoba	1.3	Portugal	2.2
Saskatchewan	1.3	Spain	1.2
Alberta	1.0	Ceylon	6.5

INFANT DEATHS

Deaths of children under one year of age numbered 823, a decrease of 107 from the previous year; of this number, 462 were males and 361 females. Of these children, 237 were less than one day old and 500 were under the age of one month. The infantile death rate per 1,000 live births was 33, the previous year's rate being 39.

VITAL STATISTICS BRANCH

The following are the infant mortality rates for Canada, the Provinces and certain other countries for the year 1949:

INFANT MORTALITY RATES PER 1,000 BIRTHS

Canada	43	Eire	51
Prince Edward Island	48	New Zealand	24
Nova Scotia	42	Australia	25
New Brunswick	59	United States	31
Quebec	51	Austria	76
Ontario	37	France	56
Manitoba	41	Belgium	60
Saskatchewan	38	Italy	74
Alberta	33	Netherlands	27
British Columbia	31	Sweden	20
England and Wales	32	Portugal	115
Scotland	41	Spain	74
Northern Ireland	45	Switzerland	34

There were 403 still births, 41 more than the previous year, the rate being 16.2 per 1,000 live births.

DIVISIONS OF ALBERTA FOR CENSUS AND VITAL STATISTICS PURPOSES

As the Province of Alberta is not divided into Counties, and the political divisions are not permanently fixed, it has been found advisable to use as smaller areas, the Dominion Census Divisions.

The Province is divided into 17 census divisions. These divisions are further subdivided into organized municipal areas. These municipal areas, which were each originally within the boundaries of a single census division, have been reorganized by the Provincial authorities into larger units, and now, in many cases, part of the new municipality or improvement district is in one census division and part in another.

The following table shows the census divisions divided into municipalities, improvement districts, cities, towns and villages, with the 1946 and 1941 division population figures. The table is arranged to show the population of each of the former municipal districts, improvement districts or parts of districts included in the new units. Each new unit in the table is in blackface type. The former area or areas which make up the new units are listed directly beneath.

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNI-
CIPALITIES FOR CENSUS YEARS, 1941 AND 1946

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
ALBERTA	803,330	796,169	Division No. 1—Continued:		
Rural	448,934	489,583	Division No. 2	60,982	58,563
Urban	354,396	306,586	Rural	29,651	29,725
Division No. 1	31,256	29,595	5. Sugar City	5,116	4,749
Rural	15,027	16,408	7. I.D.	376	432
1. I.D.	806	947	8. I.D. (pt.)	179	202
1. I.D.	43	57	37. Sugar City	2,844	2,391
2. I.D.	104	148	38. I.D.	1,305	1,282
3. I.D.	167	169	67. I.D. (pt.)	412	442
31. I.D.	52	62	6. Cochrane	3,735	4,233
32. I.D.	440	511	8. I.D. (pt.)	945	1,106
2. Burlington	1,275	1,440	9. I.D.	1,311	1,538
33. Flowery Plains	409	487	10. Cochrane	1,479	1,589
34. Burlington	866	953	8. I.D.	41	2
3. I.D.	2,242	2,505	39. Kerr (pt.) .....	.....	2
4. I.D.	391	521	40. Castle River (pt.) ..	41	.....
5. I.D.	994	1,067	9. Pincher Creek	3,135	3,363
6. I.D.	503	541	39. Kerr (pt.)	1,422	1,532
35. I.D.	354	376	40. Castle River (pt.) ..	605	614
4. Warner	1,940	1,871	70. Livingston	1,108	1,217
36. Warner	1,940	1,871	10. I.D.	4,153	4,149
11. I.D.	3,774	4,756	71. I.D.	4,153	4,149
61. I.D.	565	740	15. I.D. (pt.)	7,171	6,693
62. I.D.	534	615	67. I.D. (pt.)	4,530	4,267
63. I.D.	514	609	16. Bright	2,264	2,427
91. I.D.	917	1,164	68. I.D. (pt.)	2,641	2,426
92. I.D.	705	890	39. Kerr .....	.....	68
93. I.D.	539	738	68. I.D. (pt.)	374	423
12. Forty Mile	784	959	69. Bright	1,187	1,153
64. Forty Mile	784	959	99. Argyle (pt.)	454	476
13. Bow Island	465	535	100. I.D. (pt.)	249	307
94. Bow Island	465	535	26. Argyle (pt.)	1,248	1,516
14. Eureka	1,120	1,098	99. Argyle (pt.)	1,009	1,238
65. Eureka	1,120	1,098	100. I.D. (pt.)	239	278
15. I.D. (pt.)	2,621	2,297	27. I.D. (pt.)	95	162
66. I.D.	2,621	2,297	101. I.D.	95	162
Urban	16,229	13,187	Waterton Lakes Nat. Park	210	269
Cities:			Indian Reserves	2,483	2,162
Medicine Hat	12,859	10,571	Urban	31,331	28,838
Towns:			Cities:		
Bow Island	432	291	Lethbridge	16,522	14,612
Irvine	261	240	Towns:		
Taber	1,760	1,331	Blairmore	1,767	1,731
Villages:			Cardston	2,334	1,864
Burdett	110	123	Claresholm	1,306	1,265
Milk River	437	335	Coleman	1,809	1,870
Warner	370	296	Granum	238	238

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
Division No. 2—Continued:			Division No. 4—Continued:		
Towns—Continued:			Rural—Continued:		
Macleod	1,649	1,912	192. I.D.	39	6
Magrath	1,295	1,207	193. I.D.	1	2
Pincher Creek	1,148	994	Bow West Areat (pt.)	719	927
Raymond	2,116	2,089	96. I.D. (pt.)	176	245
Villages:			127. I.D. (pt.)	478	595
Coaldale	413	290	157. Marquis (pt.)	65	87
Cowley	94	125			
Frank	194	204	Urban	9,270	7,068
Stirling	446	437	Towns:		
Division No. 3	14,749	15,518	High River	1,674	1,430
Rural	10,963	12,151	Nanton	873	718
21. I.D.	1,927	2,404	Okotoks	694	591
121. Many Islands (pt.)			Stavely	299	273
I.D.	1,927	2,404	Vulcan	786	732
122. Jubilee I.D. (pt.)	614	633	Villages:		
22. I.D.	631	637	Arrowwood	206	251
125. I.D. (pt.)	17	4	Barons	270	233
125 I.D. (pt.)	1,104	1,180	Black Diamond	1,380	890
23. I.D.	1,308	1,359	Blackie	222	223
127. I.D. (pt.)	204	179	Carmangay	229	229
28. I.D. (pt.)	5,480	5,475	Caley	140	133
123. Bow Slope (pt.)...	5,480	5,475	Champion	279	320
34. Acadia (pt.)	12	9	Milo	108	129
241. Acadia (pt.)	12	9	Lomond	138	129
Army Experimental Range		317	Nobleford	126	111
121. Many Islands		12	Picture Butte	689	...
122. Jubilee I.D. (pt.)..		305	Turner Valley	1,157	676
Berry Creek-Sullivan Lake					
Area (pt.)	661	752	Division No. 5	16,719	18,926
122. Jubilee I.D. (pt.)..	661	752	Rural	13,409	15,560
Bow West Area (pt.)	944	1,198	34. Acadia (pt.)	670	739
96. I.D. (pt.)	398	536	241. Acadia (pt.)	670	739
127. I.D. (pt.)	546	662	42. I.D. (pt.)	2,761	2,428
Urban	3,786	3,367	276. I.D. (pt.)	2,761	2,428
Towns:			47. Starland	2,627	3,214
Bassano	590	582	277. Michichi	879	1,118
Brooks	1,091	888	306. Lambton (pt.)	688	848
Redcliffe	1,289	1,111	307. Starland	1,060	1,248
Villages:			Berry Creek-Sullivan Lake		
Duchess	207	149	Area (pt.)	3,684	4,658
Empress	417	341	214. I.D. (pt.)	963	1,251
Enchant		76	305. I.D. (pt.)	2,383	2,986
Jenner		27	306. Lambton (pt.)	338	421
Tilley	192	193	Sounding Creek-Neutral		
Division No. 4	28,402	29,383	Hills Area (pt.)....	3,667	4,521
Rural	19,132	22,315	214. I.D. (pt.)	114	185
25. Barons	19,132	22,315	242. I.D.	2,087	2,506
97. I.D.	2,757	2,939	273. I.D.	474	553
98. Little Bow	1,234	1,363	331. I.D. (pt.)	992	1,277
127. I.D. (pt.)	40	71	Urban	3,310	3,366
26. Argyle (pt.)	1,776	1,994	Towns:		
129. Clear Lake	1,544	1,728	Hanna	1,756	1,622
130. I.D. (pt.)	232	266	Villages:		
27. I.D. (pt.)	155	107	Cereal	111	142
130. I.D. (pt.)	59	39	Chinook	130	142
131. I.D.	96	68	Craigmyle	140	186
Rural:			Delia	231	315
29. Vulcan	2,201	2,726	Morrin	177	216
127. I.D. (pt.)	26	72	Munson	93	139
128. Harmony	621	845	Oyen	339	326
157. Marquis	380	442	Rumsey	98	90
158. Royal	1,174	1,367	Youngstown	235	188
30. Blackie	2,171	2,433	Division No. 6	157,556	146,990
157. Marquis (pt.)	641	857	Rural	45,914	46,679
189. Dinton	1,530	1,576	28. I.D. (pt.)	663	668
31. Highwood	3,497	3,552	123. Bow Slope I.D.		
159. Riley	1,686	1,721	(pt.)	663	668
190. Sheep Creek	1,811	1,831	32. Turner Valley (pt.)	63	84
32. Turner Valley (pt.)	4,540	6,175	222. I.D. (pt.)	63	84
160. I.D.	1,461	2,422	39. I.D.	458	555
161. I.D. (pt.)	18	47	217. I.D.	458	555
191. Stockland	3,061	3,706	40. Bow Valley	2,578	2,907
33. I.D.	42	28	218. Blackfoot	1,244	1,451
161. I.D. (pt.)	2	20	219. Bow Valley	1,334	1,456
			41. I.D.	686	893

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
Division No. 6—Continued:			Division No. 7—Continued:		
Rural—Continued:			Rural—Continued:		
247. I.D.	686	893	421. Ribstone	1,229	1,416
42. I.D. (pt.)	3,840	4,061	422. Gilt Edge	1,322	1,489
276. I.D. (pt.)	2,840	4,061	423. Battle River	1,086	1,399
43. Serviceberry	2,832	3,013	62. Flagstaff	6,461	7,804
248. Grasswold	1,332	1,400	364. Flagstaff	998	1,530
249. Keoma	1,500	1,613	394. Asquith	835	1,043
44. Conrich	4,892	4,273	395. Wheatland	1,465	1,692
220. Shepard	2,841	2,134	424. Kinsella	993	1,105
250. Beddington	2,051	2,139	425. Sterling	1,688	1,873
45. Springbank	5,008	3,241	455. Iron Creek (pt.)....	482	561
221. Springbank	5,008	3,241	73. Beaver (pt.)	1,347	1,518
46. I.D.	3,711	3,598	455. Iron Creek (pt.) ..	1,347	1,518
222. I.D. (pt.)	286	405	Berry Creek-Sullivan Lake		
223. I.D.	1,693	1,546	Area (pt.)	126	147
251. I.D.	1,365	1,314	305. I.D. (pt.)	126	147
252. I.D.	361	333	Sounding Creek-Neutral		
254. I.D.	6	....	Hills Area (pt.)	2,555	3,012
224, 253. I.D. ....	....	....	331. I.D. (pt.)	2,555	3,012
48. Kneehill	7,151	8,097	Buffalo National Park	17	4
278. Carbon	1,207	1,580			
279. Norquay	1,982	2,184	Urban	7,915	7,169
308. Ghost Pine	1,786	2,023	Towns:		
309. Stauffer	2,176	2,310	Castor	647	625
49. Mountain View	8,883	9,800	Coronation	633	581
280. Rosebud	2,141	2,233	Hardisty	494	457
281. Beaver Dam	2,080	2,327	Wainwright	1,261	980
310. Mountain View	2,231	2,580	Villages:		
311. Westerdale	2,431	2,660	Alliance	243	233
50. I.D.	899	1,085	Cadogan .....	....	99
282. I.D.	899	1,085	Chauvin	383	343
283, 284. I.D. ....	....	....	Consort	325	265
51. Banff National Park	2,244	2,545	Czar	121	139
Banff (not)	2,081	2,187	Edgerton	273	258
Indian Reserves	2,006	1,859	Forestburg	243	231
			Galahad	166	145
Urban	111,642	100,311	Hughenden	168	164
Cities:			Irma	345	273
Calgary	100,044	88,904	Killam	430	347
Drumheller	2,659	2,748	Lougheed	171	195
Towns:			Monitor .....	....	82
Didsbury	980	892	Provost	645	518
Gleichen	477	435	Sedgewick	417	320
Olds	1,521	1,337	Strome	233	233
Strathmore	603	560	Veteran	191	190
Three Hills	952	706	Viking	526	491
Villages:					
Acme	282	285	Division No. 8	64,789	67,630
Airdrie	198	191	Rural	44,097	49,293
Beiseker	272	240	54. Stettler	6,093	7,167
Carbon	369	409	336. Success	1,236	1,389
Carstairs	385	371	337. Vimy	686	947
Cluny	151	138	366. Dublin	1,071	1,257
Cochrane	405	298	367. Waverly	1,790	1,893
Crossfield	433	409	396. Haig (pt.)	811	1,012
Forest Lawn	646	899	397. Lakeside (pt.)	499	669
Hussar	130	116	55. Red Deer (pt.)	6,681	7,792
Irricana	150	172	338. Hays	2,411	2,702
Langdon .....	....	95	339. Pine Lake	2,011	2,726
Rockyford	226	201	340. Arthur	2,259	2,364
Rosebud .....	....	99	63. Camrose	11,456	12,449
Standard	244	212	396. Haig (pt.)	413	542
Swalwell .....	....	114	397. Lakeside (pt.)	922	1,004
Trochu	515	480	426. Melrose	2,760	2,955
			427. Evergreen	2,469	2,730
Division No. 7.....	29,928	33,285	456. Parkland (pt.)	2,197	2,317
Rural	22,013	22,116	457. Lloyd George	2,695	2,901
52. Provost	4,020	4,716	64. Lacombe (pt.)	6,020	6,583
362. Hillcrest	936	986	398. Lamerton	2,169	2,479
363. Stocks (pt.)	489	617	399. Crown	3,851	4,104
391. Sifton	1,454	1,688	66. Ponoka (pt.)	5,625	6,235
392. Vale (pt.)	310	384	428. Waterglen	1,277	1,486
393. Huamha	831	1,041	429. Fertile Valley	4,348	4,749
53. Paintearth	3,503	4,160	73. Beaver (pt.)	398	562
334. Coronation	1,494	1,840	456. Parkland (pt.)	398	562
363. Stocks (pt.)	286	318	74. Wetaskiwin (pt.)	6,496	7,263
365. Progress	1,723	2,002	458. Montgomery	3,185	3,486
61. Wainwright (pt.)	3,984	4,755	459. Bigstone (pt.)	3,311	3,777
392. Vale (pt.)	347	451	Indian Reserves	1,328	1,242

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNI-
CIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
Division No. 8—Continued:			Division No. 9—Continued:		
Urban	20,692	18,337	Rural—Continued:		
Cities:			80. Jasper National Park ..	1,588	1,622
Red Deer	4,042	2,924	Jasper (not)	1,419	1,335
Wetaskiwin	2,645	2,318	Urban	4,150	3,187
Towns:			Towns:		
Camrose	2,967	2,598	Rocky Mountain	1,017	800
Daysland	464	438	Sylvan Lake	971	805
Innisfail	1,272	1,223	Villages:		
Lacombe	1,808	1,603	Bentley	362	279
Ponoka	1,468	1,306	Bowden	273	234
Stettler	1,499	1,295	Eckville	195	135
Villages:			North Red Deer	698	524
Alix	428	360	Rimbey	634	410
Bashaw	511	494	Division No. 10	51,881	58,807
Bawlf	231	227	Rural	42,510	49,982
Big Valley	209	291	61. Wainwright (pt.)	333	425
Bittern Lake	38	50	451. Merton (pt.)	259	303
Blackfalds	119	113	452. Grizzly Bear (pt.) ..	74	122
Botha	112	111	71. Vermilion River (pt.) ..	10,572	11,869
Clive	227	224	451. Merton (pt.)	1,164	1,379
Delburne	379	308	452. Grizzly Bear (pt.) ..	973	1,246
Donalda	220	206	481. Wellington	1,566	1,794
Edberg	163	152	482. Vermilion Valley ..	1,819	1,872
Elnora	201	195	511. Streamstown	2,235	2,420
Erskine		172	512. Ethelwyn	2,815	3,158
Ferintosh	186	169	72. Minburn	6,218	7,052
Gadsby	120	141	453. Buffalo Coulee	1,130	1,370
Gull Lake	39	21	454. Lakeview	1,242	1,358
Halkirk	121	118	483. Melberta	1,716	1,894
Millet	348	325	484. Birch Lake	2,130	2,430
Mirror	562	570	73. Beaver (pt.)	3,173	3,683
New Norway	179	169	485. Patricia (pt.)	1,080	1,261
Ohaton		53	486. Beaver Lake (pt.) ..	2,093	2,422
Penhold	134	183	81. Eagle	11,787	14,483
Division No. 9	31,160	32,232	485. Patricia (pt.)	771	848
Rural	27,010	29,045	513. Ukraina	2,549	3,179
55. Red Deer (pt.)	5,006	5,735	514. Sobor	2,664	3,279
341. Poplar Grove	2,762	3,113	515. Norma	2,502	3,027
371. Golden West	2,244	2,622	545. Eagle	3,301	4,150
56. Waterloo	1,482	1,402	82. Lamont	10,427	12,470
312. Waterloo	1,482	1,402	486. Beaver Lake (pt.) ..	585	672
57. Raven	2,168	2,254	516. The Pines	2,966	3,547
342. Raven	2,168	2,254	546. Wostok	3,812	4,653
58. I.D.	116	94	547. Leslie	3,064	3,598
313, 314. I.D.	11	12	Urban	9,371	8,825
316. I.D.		4	Towns:		
344. I.D.	99	72	Lloydminster (pt.)	698	572
374, 375. I.D.	6	6	Vegreville	1,563	1,696
315, 345, 346. I.D.			Vermilion	1,630	1,408
64. Lacombe (pt.)	2,634	2,670	Villages:		
400. Lorne	2,634	2,670	Andrew	369	326
65. I.D.	3,865	4,307	Bruderheim	232	237
343. I.D.	781	833	Chipman	194	240
401. Lochearn	2,716	3,037	Derwent	207	171
403. I.D.	368	437	Hairy Hill	235	
66. Ponoka (pt.)	1,685	1,800	Holden	382	361
430. Blindman	1,685	1,800	Innisfree	258	253
67. Last West	1,482	1,898	Islay		132
431. Last West	1,482	1,898	Kitscoty	240	234
68. I.D.	136	135	Lamont	468	438
432. I.D.	136	135	Lavoy	127	178
69. I.D.	1,979	1,234	Manville	472	396
376. I.D.	1,263	768	Minburn	198	129
433. I.D.	178	114	Mundare	727	756
434. I.D.	350	240	Myrnam	308	216
435. I.D.	67	8	Ranfurly		129
436. I.D. (Pt.)	2		Ryley	338	323
463. I.D.	119	102	Two Hills	289	210
464, 465. I.D.		2	Willingdon	436	420
347, 348, 377, 437 (pt.) ..			Division No. 11	168,331	149,193
76. I.D. (pt.)	3,187	3,877	Rural	48,548	49,400
460. Columbia	1,760	1,951	73. Beaver (pt.)	2,629	2,997
461. I.D.	1,046	1,486	487. Cornhill	2,629	2,997
462. I.D.	381	440	74. Wetaskiwin (pt.)	9	39
79. I.D. (pt.)	1,682	2,017	459. Bigstone (pt.)	9	39
436. I.D. (pt.)	2	3			
466. I.D. (pt.)	1,680	2,014			
437 (pt.), 468. I.D.					

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
Division No. 11—Continued:			Division No. 12—Continued:		
Rural—Continued:			Rural—Continued:		
75. Leduc	11,629	12,741	529, 530, 561, 587. I.D. ....	.....	.....
488. Black Mud	3,798	4,239	108. I.D. (pt.)	131	106
489. Liberty	4,394	4,883	612. I.D. (pt.)	131	106
490. Pioneer	3,437	3,619	109. I.D. (pt.)	1,189	1,209
76. I.D. (pt.)	1,385	1,479	583. I.D.	830	889
491. I.D.	1,385	1,479	612. I.D.	319	277
83. Strathcona	6,383	6,725	615. I.D.	40	43
517. Clover Bar	2,515	2,740	616. I.D. ....	.....	.....
518. Strathcona	3,868	3,985	110. I.D. (pt.)	45	33
84. Stony Plain	11,816	10,061	589. I.D. (pt.) .....	.....	.....
519. Spruce Grove	6,923	4,824	590. I.D. (pt.)	45	33
520. Inga	2,693	3,013	111. I.D. (pt.) .....	.....	.....
521. Tomahawk	1,960	2,198	591. I.D. (pt.) .....	.....	.....
551. Morthen (pt.)	240	26	Urban	1,874	1,934
90. Sturgeon (pt.)	5,429	5,115	Towns:		
548. Sturgeon	5,429	5,115	Edson	1,571	1,499
91. Morinville (pt.)	3,248	3,542	Villages:		
549. Ray	3,248	3,542	Entwistle .....	.....	218
93. Lac Ste. Anne (pt.)	5,109	5,654	Mayerthorpe	303	217
550. Woodford	2,590	3,045			
551. Morthen (pt.)	2,519	2,609	Division No. 13	30,352	33,172
Elk Island National Park	51	50	Rural	27,775	30,805
Indian Reserves	860	997	71. Vermilion River (pt.)	441	587
Urban	119,783	99,793	541. I.D. (pt.)	441	587
Cities:			85. I.D.	360	512
Edmonton	113,116	93,817	541. I.D. (pt.)	132	153
Towns:			571. I.D.	228	359
Beverly	1,171	981	86. St. Paul	9,234	10,122
Fort Saskatchewan	921	903	542. Lincoln	1,079	1,221
Leduc	920	871	543. Laurier	2,792	3,066
Morinville	735	580	544. Champlain	1,964	2,213
St. Albert	804	697	573. St. Vincent (pt.) ..	1,241	1,351
Stony Plain	720	566	574. St. Lina	1,267	1,347
Tofield	608	551	605. Ashmont (pt.)	891	924
Villages:			87. Bonnyville	1,737	1,867
Alberta Beach	101	59	572. Bonnyville	1,737	1,867
Hay Lakes	199	154	88. St. Vincent	1,628	1,965
Kapasawin .....	.....	.....	573. St. Vincent (pt.)....	1,628	1,965
Onoway	175	156	89. Smoky Lake (pt.)	4,103	4,837
Sangudo	236	173	575. Vilna	3,087	3,590
Seba Beach	77	84	605. Ashmont (pt.)	872	1,069
Wabamun .....	.....	201	635. I.D. (pt.)	144	178
Division No. 12	16,718	17,431	101. I.D.	5,719	6,259
Rural	14,844	15,497	601. I.D.	1,363	1,466
77. I.D.	1,645	2,004	602. I.D.	1,817	1,949
522. I.D.	1,645	2,004	603. I.D.	1,175	1,311
78. I.D.	2,016	2,487	604. I.D. (pt.)	288	313
493. I.D.	71	34	631. I.D.	953	1,007
495, 524. I.D.	24	35	632. I.D.	11	18
523. I.D.	83	99	633. I.D.	92	131
553. I.D.	1,065	1,318	634. I.D. (pt.)	20	64
554. I.D.	773	1,001	102. I.D. (pt.)	2,577	2,745
494. I.D. ....	.....	.....	604. I.D. (pt.)	312	408
79. I.D. (pt.)	2,558	1,862	634. I.D. (pt.)	140	216
466. I.D. (pt.)	2,555	1,803	635. I.D. (pt.)	919	1,013
498. I.D.	3	59	664. I.D. (pt.)	32	4
93. Lac Ste. Anne (pt.)	2,148	2,484	666. I.D.	832	751
582. Kitchener	2,103	2,458	695. I.D.	342	353
612. I.D. (pt.)	45	26	121. I.D. (pt.)	13	52
94. Pembina	2,710	2,667	661, 662. I.D. ....	.....	35
552. Pembina	2,710	2,667	663. I.D.	1	11
95. I.D.	2,236	2,560	664. I.D. (pt.) .....	.....	35
525. I.D.	52	43	Indian Reserves	1,963	1,859
526. I.D.	72	225	Urban	2,577	2,367
527. I.D.	356	344	Towns:		
555. I.D.	860	930	St. Paul	1,187	1,018
556. I.D.	387	291	Villages:		
584. I.D.	472	690	Bellis .....	.....	128
585. I.D.	37	37	Bonnyville	730	603
586. I.D. ....	.....	.....	Elk Point	338	307
96. I.D.	166	85	Vilna	322	311
528. I.D.	111	30	Division No 14	44,546	47,899
557. I.D.	25	.....	Rural	40,075	44,526
558. I.D.	30	44	89. Smoky Lake (pt.)	8,167	9,884
559, 560. I.D. ....	.....	4	576. Smoky Lake	3,294	3,974
588. I.D. ....	.....	7			

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
Division No. 14—Continued:			Division No. 15—Continued:		
Rural—Continued:			Rural—Continued:		
577. Unity	3,924	4,798	675, 676, 677, 678, 679, I.D.		1
606. I.D. (pt.)	21	46	620, 621 (pt.), 647, 648, 674. I.D.		
607. I.D. (pt.)	928	1,066	111. I.D. (pt.)	211	267
90. Sturgeon (pt.)	2,619	3,166	622. I.D. (pt.)		12
578. Opal	2,619	3,166	623, 650, 651. I.D.		35
91. Morinville (pt.)	2,563	2,838	681. I.D.		44
579. Hazelwood (pt.) ..	2,563	2,838	709. I.D.	99	93
92. Westlock	9,705	10,469	710. I.D.	112	83
579. Hazelwood (pt.)...	673	653	591 (pt.), 621 (pt.), 624, 649, 680, 711. I.D.		
580. Lockerbie (pt.)	1,903	2,309	123. I.D.		15
608. Tawatinaw	2,123	2,256	700, 702. I.D.		15
609. Pibroch	2,341	2,476	672, 673, 701, 703. I.D....		
610. Shoal Creek	2,665	2,775	124. I.D.	2,731	2,545
93. Lac Ste. Anne (pt.)...	2,487	3,006	730. I.D.	88	158
580. Lockerbie (pt.)	514	723	731. I.D.	691	698
581. Pershing	1,973	2,283	732. I.D.	866	758
102. I.D. (pt.)	3,392	3,557	733. I.D.	1,086	931
606. I.D. (pt.)	25	28	125. I.D.	2,713	3,044
607. I.D. (pt.)	997	1,123	705. I.D.	28	28
636. I.D. (pt.)	484	505	734. I.D.	116	93
665. I.D.	1,508	1,412	735. I.D.	200	248
726. I.D.	378	489	864. I.D.	1,312	1,087
103. Cartier	1,423	1,397	765. I.D.	856	1,384
637. Cartier	1,423	1,397	794. I.D.	201	204
104. I.D.	1,909	2,112	704. I.D.		
636. I.D. (pt.)	159	171	126. I.D.	1,719	1,687
667. I.D.	1,750	1,941	706. I.D.	422	416
105. Nelson	1,733	1,808	707. I.D.	274	203
638. Nelson	1,733	1,808	708. I.D.	41	93
106. Grosmont	835	863	736. I.D.	149	135
668. Grosmont (pt.)	835	863	737. I.D.	206	92
107. I.D.	2,925	3,166	738. I.D.	608	730
639. I.D.	805	903	767. I.D. (pt.)	19	18
640. I.D.	976	1,029	130. I.D.	3,571	4,327
668. Grosmont (pt.)	27		766. I.D.	725	601
669. I.D.	501	695	767. I.D. (pt.)	81	96
698. I.D.	122	63	795. I.D.	286	873
699. I.D.	494	476	796. I.D.	2,479	2,757
108. I.D. (pt.)	978	1,088	131. I.D. (pt.)	1,624	1,829
611. I.D.	978	1,088	325. I.D.	274	275
122. I.D.	1,339	1,172	826. I.D.	903	974
696. I.D.	243	281	855. I.D.	447	580
697. I.D.	563	588	824, 854. I.D.		
727. I.D.	173	57	Indian Reserves	938	1,154
728. I.D.	33	79	Urban	2,742	1,464
729. I.D.	327	167	Towns:		
Urban	4,471	3,373	Peace River	997	873
Towns:			Villages:		
Athabasca	747	578	Fahler	279	244
Villages:			Grouard		347
Barrhead	739	399	High Prairie	643	
Clyde	150	160	McLennan	823	
Lac La Biche	642	517	Division No. 16	28,733	30,349
Legal	445	462	Rural	23,480	26,349
Radway	179		111. I.D. (pt.)	1	18
Smoky Lake	457	430	741. I.D. (pt.)		12
Waskatenau	258	237	742. I.D. (pt.)	1	6
Westlock	854	590	127. Grande Prairie	9,505	10,687
Division No. 15	17,097	17,484	739. Grande Prairie	1,962	2,307
Rural	14,355	16,020	740. Bear Lake	2,575	2,622
108. I.D. (pt.)	638	917	741. I.D. (pt.)	1,382	1,632
641. I.D.	605	875	742. I.D. (pt.)	387	462
670. I.D.	31	42	769. I.D. (pt.)	78	79
671. I.D.	2		770. I.D. (pt.)	352	418
109. I.D. (pt.)	134	160	771. I.D.	1,682	1,946
613. I.D.	96	149	772. I.D.	1,087	1,221
614. I.D.	1	3	132. I.D.	2,279	2,248
642. I.D.	37	8	769. I.D. (pt.)	600	652
643. I.D.			797. I.D.	964	884
110. I.D. (pt.)	76	75	827. I.D.	154	166
589. I.D. (pt.)	2		828. I.D.	561	546
590. I.D. (pt.)	53	64			
617, 644, 645. I.D.	4				
618, 619, 646. I.D.	2	3			
622. I.D.	15	7			

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Divisions and Subdivisions	Total		Divisions and Subdivisions	Total	
	1946	1941		1946	1941
Division No. 16—Continued:			Division No. 17—Continued:		
133. Spirit River	1,404	1,828	Rural—Continued:		
829. Spirit River	1,404	1,828	760, 820, 848-850. I.D. ....	....	....
134. I.D.	2,560	2,728	129. I.D.	378	335
770. I.D. (pt.)	602	644	761, 762. I.D.	22	6
800. I.D.	358	393	763, 793. I.D.	243	193
801. I.D.	76	93	852, 853. I.D.	52	75
830. I.D.	980	1,022	880, 881. I.D.	61	61
831. I.D.	523	538	791, 792, 821-823, 851. I.D. ....	....	....
860. I.D. ....	....	10	131. I.D. (pt.)	136	51
861. I.D.	21	28	882. I.D.	127	42
135. Peace	1,791	2,003	915. I.D.	9	9
857. Peace	1,791	2,003	137. I.D.	112	45
136. Fairview	2,074	2,326	878, 879, 910. I.D.	112	45
858. Fairview	2,074	2,326	877,908. I.D. ....	....	....
138. I.D. (pt.)	1,641	1,844	138. I.D. (pt.)	2,033	1,970
886. I.D.	451	516	946. I.D.	1,657	1,571
887. I.D.	578	666	947. I.D.	55	85
916. I.D.	290	268	977. I.D.	129	132
917. I.D.	322	394	978. I.D.	192	182
139. I.D.	2,110	2,506	143. I.D.	2,555	2,316
859. I.D.	884	824	782. I.D.	35	32
888. I.D.	411	564	843. I.D.	2,520	2,284
889. I.D.	446	681	781, 783, 784. I.D. ....	....	....
890. I.D.	45	62	144. I.D.	89	37
891. I.D.	182	164	907. I.D.	24	....
919. I.D.	55	80	1092. I.D.	65	37
920. I.D.	87	131	909, 938, 940, 969-971, 1000-1002, 1029-1031, 1059, 1119. I.D. ....	....	....
918, 921. I.D. ....	....	....	145. I.D.	58	90
Indian Reserves	115	161	945, 975. I.D.	16	47
Urban	5,253	4,000	1005. I.D.	42	43
Towns:			911-914, 941-944, 972-974, 976, 1003, 1004, 1032-1036. I.D. ....	....	....
Grande Prairie	2,267	1,724	1037, 1038. I.D.	379	278
Villages:			146. I.D.	382	279
Beaverlodge	443	331	1006, 1016. I.D.	3	1
Berwyn	308	206	948-951, 979-982, 1007-1011, 1017-1020, 1039-1042, 1067-1071, 1096-1098. I.D. ....	....	....
Clairmont .....	....	102	147. I.D.	1,339	1,378
Fairview	487	432	1065. I.D.	323	385
Grimshaw	287	169	1094. I.D.	612	559
Hythe	288	247	1124. I.D.	314	322
Rycroft	272	....	1125. I.D.	90	112
Sexsmith	302	325	1066, 1123. I.D. ....	....	....
Spirit River	362	276	148. I.D.	12	12
Wembley	237	188	1122. I.D.	12	12
			1129-1134, 1147-1152, 1179-1184, 1209-1214, 1238-1243. I.D. ....	....	....
Division No. 17	10,131	9,712	149. I.D.	52	67
Rural	10,131	9,712	1138-1140. I.D.	52	67
102. I.D. (pt.) ....	....	3	1099-1101, 1135-1137, 1153-1158, 1185-1190, 1215-1220, 1244-1249. I.D. ....	....	....
694. I.D. (pt.) ....	....	3	Wood Buffalo National Park (pt.)	24	42
121. I.D. (pt.)	219	224	Indian Reserves	2,361	2,507
693. I.D.	16	....		
694. I.D. (pt.)	48	26			
723. I.D.	109	139			
725, 756, 786. I.D.	17	47			
752, 753. I.D.	29	12			
691, 692, 721, 722, 724, 751, 754, 755, 785. I.D. ....	....	....	
128. I.D.	381	356			
757, 758, 759, 787, 790. I.D.	6	1			
817, 818, 847. I.D.	40	....		
819. I.D.	335	355			

TABLE 1.—GENERAL SUMMARY OF BIRTHS, DEATHS AND MARRIAGES IN ALBERTA BY DIVISIONS, CITIES, TOWNS AND VILLAGES OF 1,000 POPULATION AND OVER, BY PLACE OF RESIDENCE, 1949

Divisions, Cities, Towns and Villages	Births (Exclusive of Still- births)		DEATHS						Stillbirths		Marriages			
			All Ages		Under 1 year		1-4 years					Neo-natal deaths (under 1 month)		
	Total	M.	F.	Total	M.	F.	M.	F.	M.	F.				
TOTAL FOR THE PROVINCE	24935	12783	12152	7083	4350	2733	462	361	92	75	279	221	403	9037
Division No. 1	990	521	469	292	178	114	21	15	2	3	16	8	10	406
Division No. 2	1856	963	893	531	343	188	31	21	10	7	24	14	36	790
Division No. 3	459	232	227	100	64	36	5	6	1	3	2	5	6	111
Division No. 4	770	407	363	265	175	90	12	18	2	4	9	12	17	181
Division No. 5	397	193	204	134	91	43	5	4	2	1	4	2	6	84
Division No. 6	4756	2401	2355	1622	957	665	93	54	15	9	63	37	84	2290
Division No. 7	799	406	393	254	151	103	12	10	2	2	6	6	9	220
Division No. 8	1936	970	966	627	366	261	40	31	3	5	18	20	31	632
Division No. 9	792	398	394	265	173	92	18	13	5	1	6	10	10	143
Division No. 10	1215	621	594	352	209	143	20	16	4	1	10	9	21	383
Division No. 11	6102	3165	2937	1438	879	559	88	84	12	9	60	49	79	2779
Division No. 12	512	263	249	146	95	51	13	8	2	2	6	7	6	82
Division No. 13	946	483	463	220	135	85	24	18	11	9	13	10	25	209
Division No. 14	1375	690	685	351	234	117	28	21	8	10	19	9	29	291
Division No. 15	759	412	347	170	104	66	24	17	5	5	9	8	13	150
Division No. 16	944	487	457	217	139	78	13	13	3	2	8	11	20	245
Division No. 17	327	171	156	99	57	42	15	12	5	2	6	4	1	41
CITIES	8923	4601	4322	2592	1535	1057	132	107	21	12	99	67	133	5335
Calgary	3143	1597	1546	1141	656	485	55	32	8	4	40	25	54	1826
Drumheller	127	64	63	30	15	15	...	4	...	...	...	3	1	79
Edmonton	4353	2248	2105	990	597	393	53	59	9	6	38	34	58	2503
Lethbridge	558	311	247	175	110	65	5	4	3	1	5	2	10	392
Medicine Hat	436	224	212	158	101	57	14	5	1	1	11	2	3	317
Red Deer	211	110	101	51	30	21	4	1	...	...	4	...	5	152
Wetaskiwin	95	47	48	47	26	21	1	2	...	...	1	1	2	66
TOWNS	1668	904	764	584	345	239	41	33	10	4	31	28	26	1031
Beverly	56	31	25	23	18	5	3	...	...	...	2	...	4	41
Blairmore	60	32	28	10	6	4	1	2	1	...	1	2	...	50
Brooks	32	20	12	8	4	4	...	...	1	...	...	...	...	6
Camrose	90	45	45	46	29	17	3	2	...	...	1	2	2	81
Cardston	75	44	31	12	8	4	1	...	...	...	1	...	3	102
Claresholm	43	30	13	13	7	6	2	...	...	...	2	...	1	16
Coleman	71	33	38	19	12	7	1	1	...	...	...	...	...	43
Edson	62	29	33	21	14	7	1	...	1	1	1	...	1	35
Grande Prairie	119	66	53	28	13	15	3	2	...	...	2	2	1	76
Hanna	64	34	30	22	14	8	...	...	...	...	...	...	...	31
High River	50	26	24	24	16	8	1	2	...	...	1	1	1	38
Innisfail	37	19	18	15	9	6	1	...	1	...	1	1	...	33
Lacombe	76	38	38	38	22	16	4	2	...	...	3	2	3	39

Macleod	51	26	25	33	18	15	1	2	1	2	1	2	41
Magrath	42	20	22	8	5	3	...	1	...	...	...	1	13
Olds	49	29	20	24	14	10	...	...	...	...	...	1	47
Pincher Creek	46	25	21	25	17	8	2	...	...	...	...	1	25
Ponoka	78	42	36	26	16	10	2	...	...	...	...	3	42
Raymond	57	26	31	18	12	6	3	...	...	...	...	1	28
Redcliffe	44	28	16	11	7	4	...	...	...	...	...	1	5
Rocky Mountain House	66	31	35	20	14	6	2	...	...	...	...	3	18
St. Paul	65	38	27	11	7	4	...	...	...	...	...	...	30
Stettler	67	36	31	36	18	18	...	...	...	...	...	...	50
Taber	118	68	50	29	10	19	...	...	...	...	...	...	50
Vegreville	51	32	19	22	11	11	3	...	...	...	...	2	38
Vermilion	57	35	22	17	14	3	3	...	...	...	...	1	28
Wainwright	42	21	21	25	10	15	2	...	...	...	...	1	25
VILLAGES	77	37	40	16	11	5	2	...	...	...	...	1	25
Black Diamond	31	17	14	6	4	2	1	...	...	...	...	2	10
Turner Valley	46	20	26	10	7	3	1	...	...	...	...	1	15

TABLE 2.—GENERAL SUMMARY OF BIRTHS, DEATHS AND MARRIAGES IN ALBERTA BY DIVISIONS INCLUDING CITIES, TOWNS AND VILLAGES OF 1,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE, 1949

PROVINCE AND DIVISIONS															Marriages	
Births (Exclusive of Still- births)			Deaths						Neo-natal deaths (under 1 month)			Stillbirths				
			All Ages			Under 1 year							1-4 years			
Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.		Total	M.		F.
TOTAL FOR THE PROVINCE															9037	
Division No. 1	24850	12729	12121	7096	4375	2721	457	360	89	77	276	220	404	9037		
Division No. 2	1000	522	478	264	166	98	21	15	2	3	15	8	12	406		
Division No. 3	2164	1130	1034	556	355	201	34	25	9	7	27	19	42	790		
Division No. 4	354	174	180	77	49	28	4	5	1	1	2	4	3	111		
Division No. 5	450	225	225	180	118	62	5	13	..	3	4	8	7	181		
Division No. 6	230	114	116	85	57	28	2	2	2	2	1	1	6	84		
Division No. 7	5167	2626	2541	1781	1060	721	100	63	15	9	69	41	88	2290		
Division No. 8	798	396	402	207	119	88	11	12	2	2	6	7	10	220		
Division No. 9	2098	1069	1029	696	411	285	43	32	3	4	22	22	36	632		
Division No. 10	528	252	276	186	117	69	12	10	3	2	3	7	3	143		
Division No. 11	949	483	466	287	176	111	15	18	5	...	6	10	21	383		
Division No. 12	6757	3490	3267	1783	1122	661	98	85	18	16	63	48	99	2779		
Division No. 13	346	171	175	108	72	36	11	7	2	1	4	6	6	82		
Division No. 14	893	459	434	193	115	78	22	16	10	9	13	9	20	209		
Division No. 15	1204	607	597	276	185	91	27	16	7	7	17	7	21	291		
Division No. 16	702	382	320	158	95	63	25	18	4	5	10	8	14	150		
Division No. 17	948	495	453	191	122	69	13	13	4	2	8	11	16	245		
Division No. 18	262	134	128	68	36	32	14	10	2	2	6	4	...	41		

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS) BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1949

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
ALBERTA	24935	1844	1831	2044	2241	2223	2098	2227	2216	2077	2046	2024	2064
Rural	14267	1095	1038	1161	1303	1253	1210	1271	1291	1165	1164	1151	1165
Urban	10668	749	793	883	938	970	888	956	925	912	882	873	899
DIVISION No. 1	990	72	70	78	73	93	84	85	96	85	83	80	91
Rural	436	35	27	29	39	44	31	44	46	34	39	28	40
Urban	554	37	43	49	34	49	53	41	50	51	44	52	51
City of Medicine Hat	436	27	31	40	27	44	46	33	37	45	29	38	39
Town of Taber	118	10	12	9	7	5	7	8	13	6	15	14	12
DIVISION No. 2	1856	169	122	156	152	176	148	148	127	160	180	160	158
Rural	857	80	59	79	86	68	72	70	66	62	78	72	65
Urban	999	89	63	77	66	108	76	78	61	98	102	88	93
City of Lethbridge	558	43	28	41	43	51	43	40	40	61	64	46	58
Town of Blairmore	56	7	5	3	1	5	3	6	3	8	4	7	4
Cardston	75	4	8	6	6	16	6	2	1	7	10	2	7
Clareholm	43	4	...	6	2	3	4	6	3	2	5	5	3
Coleman	71	8	6	6	4	11	3	8	4	3	5	7	6
Macleod	51	8	3	2	1	4	5	4	5	4	3	4	8
Magrath	42	7	3	2	2	5	5	4	1	4	...	7	2
Pincher Creek	46	6	3	5	1	6	4	3	2	3	6	5	2
Raymond	57	2	7	6	6	7	3	5	2	6	5	5	3
DIVISION No. 3	459	34	42	36	40	31	55	31	40	34	45	35	36
Rural	355	28	31	27	26	22	44	23	33	25	37	28	31
Urban	104	6	11	9	14	9	11	8	7	9	8	7	5
Town of Brooks	60	3	8	5	6	4	4	4	4	8	6	5	3
Redcliff	44	3	3	4	8	5	7	4	3	1	2	2	2
DIVISION No. 4	770	57	65	55	75	65	71	59	76	51	64	67	65
Rural	643	47	48	48	67	54	54	49	65	44	54	57	56
Urban	127	10	17	7	8	11	17	10	11	7	10	10	9
Town of High River	50	6	4	2	6	4	7	2	5	5	4	1	4
Village of Black Diamond	31	1	6	2	...	3	2	3	3	...	3	6	2
Turner Valley	46	3	7	3	2	4	8	5	3	2	3	3	3

DIVISION No. 5	397	30	18	30	36	35	47	35	41	27	28	34
Rural	333	22	16	26	27	29	31	33	33	22	24	28
Urban	64	8	2	4	9	6	5	2	8	5	4	6
Town of Hanna	64	8	2	4	9	6	5	2	8	5	4	6
DIVISION No. 6	4756	328	372	383	439	416	401	408	412	401	393	377
Rural	1437	116	105	112	120	117	134	118	118	105	127	124
Urban	3319	212	267	271	319	299	267	290	294	296	266	253
City of Calgary	3143	202	248	258	301	288	251	275	284	280	254	241
Drumheller	127	8	12	8	12	4	14	12	8	14	9	9
Town of Olds	49	2	7	5	6	7	2	3	2	2	3	3
DIVISION No. 7	799	59	58	64	70	76	64	84	69	65	61	67
Rural	787	59	57	61	66	69	61	79	64	62	58	64
Urban	42	...	1	3	4	7	3	5	5	3	3	3
Town of Wainwright	42	...	1	3	4	7	3	5	5	3	3	3
DIVISION No. 8	1936	131	139	155	188	160	174	183	154	145	152	172
Rural	1282	90	89	107	127	99	111	123	99	109	106	97
Urban	654	41	50	48	61	61	63	60	55	36	46	75
City of Red Deer	211	12	13	17	21	18	20	19	18	15	12	21
Wetaskiwin	95	8	14	7	8	6	8	13	6	7	5	10
Town of Camrose	90	8	9	4	6	8	12	5	6	3	10	14
Innisfail	37	2	2	3	1	5	3	3	4	..	2	8
Lacombe	76	1	7	3	13	10	3	8	6	7	4	5
Ponoka	78	6	4	5	7	7	9	4	8	2	9	9
Stettler	67	4	1	9	5	7	8	10	7	2	4	8
DIVISION No. 9	792	59	63	69	70	82	56	63	69	65	59	67
Rural	726	56	56	62	61	80	51	59	59	62	56	63
Urban	66	3	7	7	9	2	5	4	10	3	3	4
Town of Rocky Mountain House	66	3	7	7	9	2	5	4	10	3	3	4
DIVISION No. 10	1215	76	83	74	108	129	108	121	100	100	90	105
Rural	1107	68	71	62	101	122	99	113	92	92	85	93
Urban	108	8	12	12	7	7	9	8	8	8	5	12
Town of Vegreville	51	5	7	6	2	2	5	4	3	4	3	8
Vermilion	57	3	5	6	5	5	4	4	5	4	2	8
DIVISION No. 11	6102	451	445	515	538	539	506	545	508	496	512	501
Rural	1717	127	148	136	159	146	146	119	167	141	149	132
Urban	4385	324	297	379	379	393	360	426	341	355	363	369
City of Edmonton	4353	324	295	375	378	291	355	425	339	350	362	366
Town of Beverly	32	....	2	4	1	2	5	1	2	5	1	3
DIVISION No. 12	512	38	37	55	65	39	32	35	56	36	36	34
Rural	5450	32	31	50	58	35	28	31	50	33	29	32
Urban	62	6	6	5	7	4	4	4	6	3	7	2
Town of Edson	62	6	6	5	7	4	4	4	6	3	7	2

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS,
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1949—Continued

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
DIVISION No. 13	946	82	67	81	96	77	74	99	83	63	68	80	76
Rural	881	81	61	80	85	71	66	92	77	58	66	74	70
Urban	65	1	6	1	11	6	8	7	6	5	2	6	6
Town of St. Paul	65	1	6	1	11	6	8	7	6	5	2	6	6
DIVISION No. 14	1375	116	100	115	104	123	111	124	116	113	103	128	122
Rural	1375	116	100	115	104	123	111	124	116	113	103	128	122
DIVISION No. 15	759	49	62	61	69	68	74	72	70	61	54	51	68
Rural	759	49	62	61	69	68	74	72	70	61	54	51	68
DIVISION No. 16	944	70	63	82	86	92	73	91	86	79	82	71	68
Rural	825	66	52	71	76	84	66	79	76	64	75	58	58
Urban	119	4	11	11	10	8	7	12	10	15	7	13	11
Town of Grande Prairie	119	4	11	11	10	8	7	12	10	15	7	13	11
DIVISION No. 17	327	23	25	35	32	22	31	29	33	22	32	21	22
Rural	327	23	25	35	32	22	31	29	33	22	32	21	22

TABLE 4.—LEGITIMATE AND ILLEGITIMATE BIRTHS (EXCLUSIVE OF STILL-BIRTHS), IN CITIES OF 5,000 POPULATION AND OVER IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1949

Province and Cities	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
TOTAL FOR THE PROVINCE	24935	12783	12152	23711	12156	11555	1224	627	597
Cities of 5,000 and over:									
Calgary	3143	1597	1546	2975	1522	1453	168	75	93
Edmonton	4353	2248	2105	4096	2104	1992	257	144	113
Lethbridge	558	311	247	529	295	234	29	16	13
Medicine Hat	436	224	212	413	210	203	23	14	9

TABLE 5.—MULTIPLE BIRTHS CLASSIFIED TO SHOW THE NUMBER OF CHILDEN BORN ALIVE AND STILLBORN, BY SEX IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1949

Classification of Births	Number
TWIN BIRTHS	294
Two males (both living)	96
One male and one female (both living)	116
Two females (both living)	94
One male living and one male stillborn	7
One male living and one female stillborn	2
One male stillborn and one female living	1
One female living and one female stillborn	9
Two males (both stillborn)	4
Two females (both stillborn)	5
TRIPLET BIRTHS	1
Three females (all living)	1
Total multiple births	Number 335
	Male 333
	Female 338
Total single live births	Number 24301
	Male 12466
	Female 11835
Total single stillbirths	Number 366
	Male 170
	Female 196
Total confinements	25002

TABLE 6.—BIRTHS (EXCLUSIVE OF STILL BIRTHS) CLASSIFIED ACCORDING TO BIRTHPLACES OF PARENTS, IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1949

	Total Fathers	Canada												British Isles					British Possessions		Europe													Asia			United States	Other American Countries	Other Countries	Unspecified																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		P.E. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Prov. Un-specified	England	Ireland	Scotland	Wales	Other	Newfoundland	Other Possessions	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Hungary	Italy	Netherlands	Norway	Poland	Roumania	Russia (U.S.S.R.)	Sweden	Yugoslavia	Other	China					Japan	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
CANADA	18546	16	125	50	221	488	646	2296	11889	401	12	749	87	270	60	1	25	15	9	17	42	20	2	7	34	33	6	65	19	218	26	72	21	12	19	4	5	2	550	4	4	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Prince Edward Island	43	2	1	1	2	6	4	4	23	1	...	2	1	1	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Nova Scotia	137	23	1	8	2	2	3	11	42	4	...	12	1	4	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
New Brunswick	83	1	1	3	86	13	18	32	129	7	...	11	4	4	3	...	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Quebec	336	...	7	4	15	131	50	120	395	20	...	38	9	21	2	...	1

[illegible]

[illegible]

TABLE 8.—BIRTHS (EXCLUSIVE OF STILLBIRTHS) CLASSIFIED ACCORDING TO RACIAL ORIGIN OF PATIENTS, IN ALBERTA
BY PLACE OF RESIDENCE OF MOTHERS, 1949

Racial Origin of Father	Racial Origin of Mother																								
	Total Fathers	English	Irish	Scottish	Other British	Austrian	Belgian	Bulgarian	Czech and Slovak	Danish	Finnish	French	German	Greek	Hungarian	Icelandic	Italian	Lithuanian	Netherland	Norwegian	Polish	Roumanian	Russian (Races of U.S.S.R.)	Swedish	Ukrainian
British	11673	4200	1735	2170	212	54	47	1	51	145	23	532	751	9	36	27	64	7	301	402	156	28	158	234	255
English	5419	2369	656	866	88	19	23	..	20	66	9	215	319	6	18	11	29	1	150	159	72	14	71	101	107
Irish	2713	741	560	459	50	14	12	1	12	36	6	165	206	2	8	7	14	5	64	117	40	6	39	62	74
Scottish	3190	971	470	785	55	18	11	..	16	41	7	132	203	1	10	6	18	1	84	111	39	7	46	64	65
Other	351	119	49	60	19	3	1	..	3	2	1	20	23	..	..	3	3	..	3	15	5	1	2	7	9
European	10911	1557	788	921	93	51	56	3	140	134	31	1144	1745	7	143	13	87	12	504	378	537	76	314	230	1854
Austrian	136	28	13	15	2	15	..	..	2	..	..	6	19	..	..	..	..	..	2	4	8	1	5	2	13
Belgian	90	19	13	12	..	1	7	..	..	..	..	9	14	..	3	..	..	..	1	1	2	1	2	2	2
Bulgarian	4	1	..	..	..	..	..	..	61	1	..	..	1	..	..	..	..	..	4	7	20	..	..	..	1
Czech and Slovak	219	30	12	20	1	2	2	..	2	47	2	8	15	1	5	..	4	..	11	22	6	1	3	16	9
Danish	346	92	33	53	3	2	3	..	2	..	12	6	26	..	3	1	2	..	..	2	2	1	1	2	2
Finnish	48	7	8	7	..	..	..	..	8	1	3	1	4	..	..	..	..	..	16	22	21	3	15	29	48
French	1615	193	145	137	7	3	19	..	10	9	3	807	86	1	6	4	9	4	51	71	56	7	35	46	78
German	2577	363	196	215	24	7	8	2	2	23	3	117	1226	3	17	1	10	..	..	..	1	..	1	..	..
Greek	8	3	..	..	..	1	..	..	6	..	..	4	10	..	73	..	..	..	..	6	1	2	7	3	9
Hungarian	177	22	13	9	1	1	..	..	..	2	..	4	..	..	..	..	..	..	2	1	6	..	..	..	..
Icelandic	32	8	4	5	1	1	..	..	..	1	..	3	1	..	..	1	..	..	2	1	..	1	..	3	1
Italian	153	32	10	19	1	..	..	..	..	..	..	17	11	..	4	1	36	..	3	2	5	1	..	1	7
Lithuanian	12	..	2	1	..	..	..	..	..	1	..	..	1	..	1	..	..	4	..	..	1	..	..	..	1
Netherland	825	170	57	77	4	4	4	..	1	8	2	24	50	..	4	1	5	1	340	24	6	3	8	16	13
Norwegian	801	185	86	121	18	6	..	..	2	17	3	35	72	..	5	1	2	1	20	135	9	2	7	38	28
Polish	680	67	31	40	4	2	3	..	14	2	..	21	39	1	2	..	8	1	5	13	247	3	20	2	158
Roumanian	101	16	7	5	1	..	..	..	1	1	..	5	7	1	..	..	..	..	2	3	6	23	3	..	20
Russian (Races of U.S.S.R.)	500	80	34	44	10	4	1	1	5	5	3	17	51	..	5	..	1	..	9	8	15	7	169	5	23
Other races	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Unspecified	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Swedish Ukrainian Yugoslavic Other	535	124	73	76	11	...	7	...	2	14	1	22	40	...	4	1	3	...	9	47	7	...	14	52	19	2	2	...	1	...	4		
	1973	115	46	56	5	3	2	...	18	2	...	38	66	...	9	2	6	1	20	11	118	...	20	14	1397	1	1	...	...	1	1	
	43	2	2	2	...	...	...	...	2	...	...	3	3	...	2	1	1	...	...	...	...	1	...	7	13	...	...	...	...	...	...
	36	6	5	7	...	...	...	...	...	...	...	...	3	...	...	...	...	2	4	...	...	1	...	3	...	7	...	...	...	...	...
	147	1	3	3	1	...	...	...	...	1	...	2	2	...	...	...	...	1	...	2	...	...	1	1	6	...	28	...	88	6	...	1
Asiatic Chinese Hindu (East Indian) Japanese Syrian Other	39	...	1	1	...	...	...	...	...	1	...	1	2	...	...	...	...	1	1	...	...	...	...	3	...	27	...	1	...	...	1	1
	
	88	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	1	1	3	...	1	...	87	6	...	...
	20	1	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Indian Jewish Negro Other races Unspecified	857	8	3	5	...	...	...	...	...	...	...	9	3	1	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	825
	97	4	2	1	2	...	...	...	...	1	...	...	2	...	...	...	1	...	...	1	...	...	2	...	3	...	...	...	...	77	...	...
	18	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	...	1
	3	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Children born to married mothers:																																	
	Total	23711	5773	2532	3101	308	105	103	4	191	281	54	1687	2506	17	179	40	152	19	808	781	698	104	475	465	2119	40	31	30	91	14	...	900
	Male	12156	2979	1289	1596	161	65	49	3	99	148	29	891	1251	9	97	18	81	8	399	396	379	46	221	225	1102	19	17	18	46	7	...	457
Female	11555	2794	1243	1505	147	40	54	1	92	133	25	796	1255	8	82	22	71	11	409	385	319	58	254	240	1017	21	14	12	45	7	...	443	
Children born to un-married mothers:																																	
	Total	1224	178	107	118	6	5	1	...	9	12	3	92	102	2	9	3	5	3	20	26	40	6	26	25	117	...	...	1	...	...	303
	Male	627	88	54	66	4	2	1	...	8	5	1	50	48	2	2	1	4	...	6	12	19	2	14	17	64	...	...	1	...	...	152
Female	597	90	53	52	2	3	...	...	1	7	2	42	54	...	7	2	1	3	14	14	21	4	12	8	53	...	...	...	...	...	151	
Children born to all mothers																																	
	Total	24935	5951	2639	3219	314	110	104	4	200	293	57	1779	2608	19	188	43	157	22	828	807	738	110	501	490	2236	40	31	31	91	16	...	1203
	Male	12783	3067	1343	1662	165	67	50	3	107	153	30	941	1299	11	99	19	85	8	405	408	398	48	235	242	1166	19	17	19	46	9	...	609
Female	12152	2884	1296	1557	149	43	54	1	93	140	27	838	1309	8	89	24	72	14	423	399	340	62	266	248	1070	21	14	12	45	7	...	594	

TABLE 9.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHERS
IN ALBERTA, 1949

Province	All Live Births					Births in Institutions				
	Place of occur- rence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of occur- rence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere	
		In Canada	In United States	In Canada	In United States		In Canada	In United States	In Canada	In United States
Total for the Province	24850	193	18	281	15	23740	188	17	277	14
										23826

TABLE 10.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS IN CITIES OF 5,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE AND
PLACE OF RESIDENCE OF MOTHERS IN ALBERTA, 1949

Cities	All Live Births					Births in Institutions				
	Place of occur- rence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of occur- rence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere	
		In Canada	In United States	In Canada	In United States		In Canada	In United States	In Canada	In United States
Calgary	4068	972	2	43	6	3143	968	2	43	6
Edmonton	6556	2258	6	60	1	4353	2246	6	58	1
Lethbridge	1033	480	2	7	...	558	480	2	7	...
Medicine Hat	724	300	...	11	1	436	300	...	11	1

TABLE 11—ORDER OF BIRTH OF LEGITIMATE CHILDREN BORN IN 1949 (INCLUDING STILLBORN CHILDREN),
IN ALBERTA, BY AGE AND RESIDENCE OF MOTHER

Order of birth of child	Total	Age of Mother										Age not stated			
		Under 15 yrs.	15 years	16 years	17 years	18 years	19 years	20-24 years	25-29 years	30-34 years	35-39 years		40-44 years	45 years and over	
1st child	6957	...	4	33	142	381	616	1176	3234	1766	554	196	30	...	1
2nd "	7132	...	...	3	16	63	182	264	2576	2636	1211	373	69	2	1
3rd "	4241	...	...	1	1	2	20	24	900	1701	1098	439	75	4	...
4th "	2351	...	...	...	...	1	3	4	261	819	761	408	91	7	...
5th "	1236	...	...	...	...	...	...	...	76	382	432	261	80	5	...
6th "	736	...	...	...	...	...	...	...	14	193	258	203	59	9	...
7th "	458	...	...	...	...	...	...	...	2	77	169	143	62	5	...
8th "	331	...	...	...	...	...	...	...	...	38	105	124	58	6	...
9th "	213	...	...	...	...	...	...	...	1	14	49	96	46	7	...
10th "	142	...	...	...	...	...	...	...	...	1	40	58	40	3	...
11th "	118	...	...	...	...	...	...	...	...	...	26	55	33	4	...
12th "	84	...	...	...	...	...	...	...	...	...	5	32	41	5	...
13th "	40	...	...	...	...	...	...	...	...	...	...	20	17	3	...
14th "	27	...	...	...	...	...	...	...	...	...	1	10	14	2	...
15th "	13	...	...	...	...	...	...	...	...	...	...	2	7	4	...
16th "	10	...	...	...	...	...	...	...	...	...	...	1	9	...	...
17th "	3	...	...	...	...	...	...	...	...	...	...	...	3	...	...
18th "	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
19th "	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...
20th and over	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Not stated	3	...	...	...	...	...	...	...	...	1	1	...	...	...	1
TOTAL	24099	...	4	37	159	447	827	1468	7064	7629	4710	2421	738	66	3

TABLE 12.—DEATHS OF CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES, BY SEX AND CALENDAR MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949

CAUSES OF DEATH	Total under 1 year		MONTH OF DEATH																								
	Total	Male	Female	January		February		March		April		May		June		July		August		September		October		November		December	
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	823	462	361	40	31	40	26	36	27	46	28	42	26	28	28	39	23	44	43	32	34	44	29	42	32	29	34
6 Cerebrospinal meningitis																											
8 Scarlet fever																											
9 Whooping cough	3	2	1	1							1	1															
10 Diphtheria																											
11 Erysipelas																											
13 Tuberculosis of the respiratory system	3	1	2	1										1			1			1					1		
14-22 Tuberculosis, other forms	4	1	3						1			1															
27 Dysentery	2	2																									
30 Syphilis	1		1	1																							
33 Influenza	19	14	5		1			1	1	3		4		2	1	1			1	1	1	1				2	
35 Measles	9	7	2									1														1	
36 Acute poliomyelitis and polioencephalitis																											
64 Diseases of the thymus gland	1	1																									
81 Meningitis (non-meningococcal)	10	6	4		1		1			1	1							1	2					1	1		1
86 Convulsions	3	1	2		1																						
89 Diseases of the ear and of the mastoid process																											
105 Diseases of the larynx	4	1	3	1	1			1																			1
106 Bronchitis	3	2	1	1																							
107 Bronchopneumonia	72	36	36	4	2	2	4	4	3	3	2	5	2	1	1	4	1	1	2	2	4	4	2	5	6	1	7
108, 109 Pneumonia	65	35	30	3	6	4	5	5		3	2	1	4	2	2	4		3	2	3	2	4	4	4	1	1	2
115 Diseases of the buccal cavity and annexa and of the pharynx and tonsils	1	1		1																							
116-118 Diseases of the stomach	1		1																								
119 Diarrhoea and enteritis	43	31	12	2	1		1	2		1	2	4	1	4	2	2		6	2	4	2	2		2	2	1	
130 Acute nephritis																											
157 Congenital malformations	120	69	51	6	3	8	1	3	10	6	2	9	3	2	3	6	3	11	4	2	6	8		6	7	2	4
(a) Congenital hydrocephalus	15	6	9				1			1			1	1		2	1	1	1	1	1	1		2	2	1	
(d) Congenital malformations of the heart	39	28	11	3		4		2	2	4		2	1	1		4	1	5			1	3		3	4	1	2
(b, c, e) Others under this title	66	35	31	3	3	4		1	8	1	2	7	2	2	2		2	5	3	1	1	4		3	1	2	1
158 Congenital debility	10	4	6					1		1	1	1		1					1		1				2	1	
159 Premature birth	247	135	112	8	11	13	10	10	7	12	9	6	4	12	11	13	8	11	13	12	9	14	7	11	13	13	10

160	Injury at birth	89	52	37	5	...	6	...	3	2	4	3	4	4	4	4	4	4	1	4	2
161	Other diseases peculiar to the first year of life	67	36	31	4	3	2	4	1	1	2	2	2	1	1	4	4	2	1	...	2
166-168	Homicides .....				...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
169-195, 197	Other violent deaths	22	12	10	2	1	1	...	2	2	...	...	...	...	...	...	...	2	3	...	1
	Other specified causes	18	10	8	1	...	...	...	2	1	1	1	1	...	...	...	...	1	...	2	2
199, 200	Ill-defined and unknown causes of death	6	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...

TABLE 13—INFANTILE DEATH AND STILLBIRTH RATES, ALSO NUMBER OF LIVE BIRTHS WITH OR WITHOUT A PHYSICIAN, BY DIVISIONS AND CITIES IN ALBERTA, BY PLACE OF RESIDENCE, 1949

Divisions and Cities	Death rate of children under one year of age to each 1,000 live births			Births with or without a physician in attendance		Rates of stillborn children to 1,000 live births		
	Rate per 1000 live births	Number of deaths	Total Live births	Not stated				
				With physician	Without physician			
Division No. 1—Medicine Hat (City of Medicine Hat excepted)	31	17	554	523	30	1	7	12.6
Division No. 2—Macleod (City of Lethbridge excepted)	33	43	1298	1178	116	4	26	20.0
Division No. 3—Bow	24	11	459	454	5	...	6	13.1
Division No. 4—Nanton	39	30	770	757	13	...	17	22.1
Division No. 5—Acadia	23	9	397	394	3	...	6	15.1
Division No. 6—Calgary (Cities of Calgary and Drumheller excepted)	38	56	1486	1417	68	1	29	19.5
Division No. 7—Battle River	28	22	799	795	4	...	9	11.3
Division No. 8—Red Deer (Cities of Red Deer and Wetaskiwin excepted)	39	63	1630	1582	45	3	24	14.7
Division No. 9—Rocky Mountain House	39	31	792	763	27	2	10	12.6
Division No. 10—Victoria	30	36	1215	1200	15	...	21	17.3
Division No. 11—Edmonton (City of Edmonton excepted).....	34	60	1749	1680	63	6	21	12.0
Division No. 12—Edson	41	21	512	486	23	3	6	11.7
Division No. 13—Beaver River	44	42	946	840	100	6	25	26.4
Division No. 14—Sturgeon	36	49	1375	1290	82	3	29	21.1
Division No. 15—Clearwater	54	41	759	643	112	4	13	17.1
Division No. 16—Peace River	28	26	944	908	35	1	20	21.2
Division No. 17—Athabasca	83	27	327	155	153	19	1	3.1
City of Edmonton	26	112	4353	4348	4	1	58	13.3
City of Calgary	28	87	3143	3139	3	1	54	17.2
City of Lethbridge	16	9	558	557	1	...	10	17.9
City of Medicine Hat	44	19	436	435	...	1	3	6.9
City of Red Deer	24	5	211	211	...	...	5	23.7
City of Drumheller	31	4	127	127	...	...	1	7.9
City of Wetaskiwin	32	3	95	94	1	...	2	21.1
Divisions	36	584	16012	15065	894	53	270	16.9
Cities	27	239	8923	8911	9	3	133	14.9
Whole Province	33	823	24935	23976	903	56	403	16.2

[illegible]

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1949

CAUSES OF DEATH	Total	AGES															100 years and over	Not stated									
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years			55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male			Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
DEATHS—ALL CAUSES	7083	823	81	39	27	20	88	53	92	145	93	110	134	160	246	298	484	684	833	863	744	539	362	129	32	4	...
	Male	4350	462	43	24	13	12	50	31	57	60	62	78	101	155	199	315	451	556	540	440	324	201	60	20	4	...
	Female	2733	361	38	15	8	38	22	35	53	33	48	56	59	91	99	169	233	277	323	304	215	161	69	12	...	...
CLASS I.—INFECTIOUS AND PARASITIC DISEASES	357	43	15	4	7	5	29	16	19	27	19	13	13	12	20	18	24	22	20	10	10	3	4	3	1	...	...
1 Typhoid fever	210	27	8	1	3	2	16	10	10	14	8	6	7	8	12	12	16	16	15	7	5	1	2	3	1	...	...
	Female	147	16	7	3	3	13	6	9	13	11	7	6	4	8	6	8	6	5	3	5	2	2	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Paratyphoid fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 Undulant fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Cerebrospinal meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8 Scarlet fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9 Whooping cough	4	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	1	1	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10 Diphtheria	8	...	1	2	1	1	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11 Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 Tetanus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13-22 Tuberculosis	116	2	6	1	1	1	9	5	7	10	7	4	4	7	10	8	6	10	9	4	4	1	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	95	5	1	1	1	2	8	3	9	12	10	6	5	3	6	5	5	3	3	2	3	2	...	...	...	...
13 Tuberculosis of the respiratory system	85	1	4	...	...	...	2	5	4	6	6	2	4	6	9	6	3	9	9	3	3	2	...	...	...	...	...
Female	71	2	1	...	...	...	1	3	6	9	7	5	4	3	6	5	5	3	3	2	2	...	...	...	...	...	...
Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(a) With mention of occupational diseases of lungs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	72	...	3	...	...	...	2	2	3	5	6	2	4	6	7	6	3	8	8	3	3	1	...	...	...	...
Female	65	2	1	...	...	...	1	2	5	8	7	5	4	3	6	5	5	2	1	2	2	...	...	...	...	...	...

[illegible]

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	AGES																100 years and over	Not stated								
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years			60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female			Male	Female	Male	Female	Male	Female	Male	Female
42 Other diseases due to helminths	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
43 Mycoses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
44 Other infectious and parasitis diseases	7	1	..	..	..	..	..	..	..	2	1	1	1	..	1	..	2	..	..	..	1	..	..	..	..	..
(a) Other venereal diseases	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Lymphogranulomatosis (Hodgkin's disease)	7	..	..	..	..	..	..	..	..	2	..	1	1	..	1	..	2	..	..	..	..	..	..	..	..	..
(c) Mumps	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
(d) Others under this title	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Male	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CLASS II.—CANCER AND OTHER TUMOURS	990	1	3	3	1	..	2	2	8	6	6	16	27	31	60	59	101	141	154	159	113	53	37	7	..	..
Male	556	1	2	2	..	..	1	..	4	1	4	6	11	8	32	28	50	82	95	102	71	33	21	2	..	..
Female	434	..	1	1	1	..	1	..	4	5	2	10	16	23	28	31	51	59	59	57	42	20	16	5	..	..
45-55 Cancer and other malignant tumours	541	1	2	1	..	..	1	..	3	1	4	5	7	8	31	26	50	81	94	100	70	33	21	2	..	..
Female	416	..	1	1	1	..	..	2	3	4	2	9	16	20	26	30	50	58	58	55	42	18	16	4	..	..
45 Cancer of the buccal cavity and pharynx	16	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	4	3	3	2	1	..	..	..
Female	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	1	..	..	..	..	..
46 Cancer of the digestive organs and peritoneum	270	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(a) Of the oesophagus	160	..	1	..	..	..	..	..	..	1	1	1	4	6	16	12	20	47	50	49	33	19	12	1	..	..
Female	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24	21	28	21	12	8	2	..	..
(b) Of the stomach	122	..	..	..	..	..	..	..	..	..	1	..	..	..	8	7	5	1	2	1	1	1	..	..	..	..
Female	4	..	..	..	..	..	..	..	..	..	..	..	..	4	3	2	3	16	25	23	14	9	5	1	..	..
(c) Of the duodenum	22	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	3	6	5	9	8	3	1	..	..	..
Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(d) Of the rectum and anus	31	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	5	4	5	6	4	2	1	2	..	..
Female	16	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	3	3	1	1	2	1	2	..	..	..
(e) Of the intestines	48	..	..	..	..	..	..	..	..	..	..	..	..	1	3	2	7	11	7	9	6	4	5	3	..	..
Female	49	..	..	..	..	..	..	..	..	1	..	..	2	1	3	2	7	6	7	7	4	4	3	2	..	..
(f) Of the liver and biliary passages	27	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	9	5	3	4	2	..	..	..	..
Male	23	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	3	3	5	6	3	2	..	..	..	..
Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

[illegible]

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	AGES																	100 years and over	Not stated							
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male			Female	Male	Female	Male	Female	Male	Female
57	(e) Of other and unspecified organs	3	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
	Tumours of undetermined nature	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	(a) Of the ovary	7	..	..	..	..	..	..	..	..	..	1	2	..	1	..	..	..	1	..	1	..	..	..	..	..
	(b) Of the uterus	5	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
	(c) Of other female genital organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	(d) Of the brain and other parts of the central nervous system	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	1	..	1	..	..	..	..	..
	(e) Of other and unspecified organs	4	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
CLASS III.—RHEUMATISM, DISEASES OF NUTRITION AND OF THE ENDOCRINE GLANDS, OTHER GENERAL AND VITAMIN DEFICIENCY DISEASES		217	2	1	1	..	3	2	5	2	9	3	2	5	4	8	8	14	25	36	42	28	9	5	3	..	
	Total	97	1	1	..	3	..	3	1	2	2	2	4	3	4	4	4	7	12	12	15	14	5	4	1	..	
	Male	120	1	..	1	..	3	2	2	7	1	..	1	1	1	4	4	7	13	24	27	14	4	1	2	..	
58	Acute rheumatic fever	10	..	..	..	..	..	3	1	1	1	1	1	1	..	..	..	..	..	..	1	..	2	..	..	..
	Female	8	..	..	..	..	1	..	..	1	1	1	1	..	1	..	..	1	..	..	..	..	..	..	..	..
	(a) Acute rheumatic heart conditions	7	..	..	..	..	..	3	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	5	..	..	..	..	..	..	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
	(b) Others under this title	3	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..
	Female	3	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
59	Chronic rheumatism and other rheumatic diseases	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	1	1	..
	Male	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	1	1	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
60	Gout	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
61	Diabetes mellitus	72	1	..	..	..	..	..	..	..	1	2	1	2	1	4	2	7	10	11	12	12	3	3	1	..
62	Diseases of the pituitary gland	84	..	..	..	2	1	..	3	3	..	..	..	..	1	1	2	4	8	21	24	2	2	1	1	..
	Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	12	12	..	..	..	..
	Female	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	12	12	..	..	..	..
63	Diseases of the thyroid and parathyroid glands	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Male	13	..	..	..	1	..	..	..	1	..	..	..	1	1	..	..	2	1	2	..	..	2	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	(a) Simple goitre	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

[illegible]

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	AGES															100 years and over	Not stated									
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years			55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
CLASS VII.—DISEASES OF THE CIRCULATORY SYSTEM	Total																										
	Male																										
	Female																										
90-95 Diseases of the heart	2184						1	4	4	7	8	14	18	30	69	107	172	280	355	342	308	250	139	61	15		
90 Pericarditis (acute rheumatic excluded)	1443							1	2	6	6	5	11	22	49	83	124	204	255	226	183	152	81	27	6		
(a) Chronic rheumatic pericarditis	741						1	3	2	1	2	9	7	8	20	24	48	76	100	116	125	98	58	34	9		
(b) Others under this title																											
91 Acute endocarditis (non-rheumatic)	2																										
(a) Bacterial endocarditis (acute, subacute or unspecified)	2							1						1					2								
(b) Other acute or subacute endocarditis	1								1																		
(c) Endocarditis (not specified under 45 years)																											
92 Chronic affections of the valves and endocardium	80									1	2	2	4	3	5	7	7	9	9	10	12	4	4	1			
(a) Specified valvular diseases (rheumatic)	53										1	4	3	3	6	6	3	8	4	2	7	3	2	1			
(b) Other specified valvular diseases (non-rheumatic)	40										1	2	3	2	3	6	5	6	3	3	3	2	1				
(c) Unspecified valvular lesions and endocarditis	24										1	2	1	2	6	1		3	1	1	4	1	1				
Diseases of the myocardium	40									1	1		1	1	2	1	2	3	6	7	9	2	3	1			
(a) Acute myocarditis	25											2	2	1		4	3	3	2	1	3	2	1	1			
(b) Myocarditis (not specified under 45 years)	4																	2	1								
(c) Chronic myocarditis and myocardial degeneration (rheumatic)	515											1	3	1	4	16	29	65	84	85	83	76	50	16	2		
	375											1	2	2	5	9	23	30	48	68	67	56	37	21	6		
	5														1			1	2		1						
	18												1														
	15													1				4	2	1	1	3	1				

[illegible]

CLASS IX.—DISEASES OF THE DIGESTIVE SYSTEM		Total		313	48	5	3	8	3	4	3	1	5	4	19	9	11	29	35	26	36	24	19	7	4
Male		205	35	4	1	6	3	3	1	1	3	2	1	1	13	6	8	20	20	24	28	16	7	4	
Female		108	13	1	2	2	...	1	2	...	...	...	...	...	6	3	3	9	15	12	8	12	3	4	
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils	5	1	...	...	1	...	1	...	...	...	...	1	...	1	...	...	1	...	...	...	1	...	...	...
	(a) Diseases of the teeth and gums	3	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
	(b) Septic sore throat	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
	(c) Diseases of the pharynx and tonsils	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...
	(d) Others under this title	3	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
116	Diseases of the oesophagus	2	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
	Ulcer of the stomach or duodenum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
	(a) Stomach	47	1	...	...	...	...	...	...	...	...	...	1	...	2	2	4	5	7	8	7	1	2	1	
	(b) Duodenum	10	...	...	...	...	...	...	...	...	...	...	...	...	1	1	4	2	2	1	2	3	1	...	
	Other diseases of the stomach	27	...	...	...	...	...	...	...	...	...	...	...	...	2	1	4	2	5	6	4	2	1	...	
117	(a) Stomach	3	1	...	...	...	...	...	...	...	...	...	1	...	2	1	...	3	2	2	4	5	1	1	...
	(b) Duodenum	20	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2	1	1	1	2	1	...
	Other diseases of the stomach	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
	(a) Diarrhoea and enteritis	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
	(b) Ulceration of the intestines	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
118	Other diseases of the stomach	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea and enteritis (under 2 years of age)	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(a) Diarrhoea and enteritis	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(b) Ulceration of the intestines	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
119	Diarrhoea and enteritis (2 years of age and over)	10	...	...	...	...	...	2	...	...	...	...	1	...	2	...	...	1	2	1	...	...	1	1	...
	(a) Diarrhoea and enteritis	6	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...
	(b) Ulceration of the intestines	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
	Appendicitis	16	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	1	1	3	...	2	...	...	...
	Hernia, intestinal obstruction	7	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	2	1	1	3	3	1	1	...
120	Hernia, intestinal obstruction	27	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	2	1	7	3	3	1	1	...
	(a) Hernia	16	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	4	2	3	1	3	1	...
	(b) Intestinal obstruction	14	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	1	4	2	1	1	1	...
	Other diseases of the intestines	7	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1	1	2	1	2	...	...	...
	Male	13	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	3	...	...	2	3	...	...
121	Intestinal obstruction	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
	(a) Intestinal obstruction	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other diseases of the intestines	5	...	...	...	...	...	...	...	...	...	...	...	...	4	1	...	6	6	2	7	1	1	...	
	Cirrhosis of the liver	34	...	...	...	...	...	...	...	...	...	...	1	...	4	1	2	1	2	2	5	1	1	1	...
	(a) With mention of alcoholism	8	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	1	1	...	...	...
122	(a) With mention of alcoholism	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

[illegible]

VITAL STATISTICS BRANCH

[illegible]

[illegible]

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	AGES															Not stated										
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years		55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years and over
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
(a) By hanging or strangulation	10	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
(b) By drowning	6	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
(c) By firearms or explosives	29	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
(d) By cutting or piercing instruments	7	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
(e) By jumping from high places	5	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
(f) By crushing	3	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
(g) By other or unspecified means	1	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Homicides	10	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Homicide by firearms	5	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Homicide by cutting or piercing instruments	3	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Homicide by other or unspecified means	6	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Accidental Death	421	Male	Female	12	7	9	7	8	27	49	29	28	22	19	22	22	28	21	21	21	13	19	10	3	1	1	
Railway accidents (excluding motor vehicles)	159	Male	Female	10	10	5	5	1	7	5	3	8	5	4	5	1	2	6	10	13	11	14	17	4	1	1	
Motor vehicle accidents	132	Male	Female	2	3	1	2	1	14	23	12	11	12	5	3	7	8	8	3	6	3	2	2	2	1	1	
Collisions with trains	32	Male	Female	1	1	1	1	1	2	2	1	3	1	1	1	1	2	1	2	4	3	2	2	2	1	1	
Collisions with street-cars	13	Male	Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Automobile accidents (excluding trains or street-cars)	118	Male	Female	2	3	1	2	1	13	23	10	11	9	4	3	7	6	4	3	6	3	2	1	1	1	1	
Motorcycle accidents (excluding automobiles)	29	Male	Female	1	1	1	1	1	2	2	1	3	3	3	1	1	1	1	2	4	3	2	2	1	1	1	

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CLASSIFICATION OF ACCIDENTAL DEATHS ACCORDING TO THE NATURE OF INJURY. THESE ACCIDENTAL DEATHS ARE CLASSIFIED ABOVE ACCORDING TO CIRCUMSTANCES INVOLVING THE ACCIDENT UNDER RUBRICS 169 TO 176, 178, 180, 181, 182, 183, 185, 186, 187 AND 193.

Accidental absorbtion of poisonous gas	Male	16	1	1	2	1	2	1	1	...	1	1	...	1	2	...	1</
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TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
DEATHS—ALL CAUSES	Total	608	556	597	685	619	576	558	560	523	609	581	611
	Male	390	345	360	411	368	341	347	355	319	395	347	372
	Female	218	211	237	274	251	235	211	205	204	214	234	239
CLASS I.—INFECTIOUS AND PARASITIC DISEASES	Total	357	24	34	40	40	19	22	29	24	25	40	24
1 Typhoid fever	Male	210	17	15	17	33	11	13	19	16	14	17	17
	Female	147	7	19	23	7	8	9	10	8	11	23	7
2 Paratyphoid fever	Male												
	Female												
5 Undulant fever	Male												
	Female												
6 Cerebrospinal meningitis	Male												
	Female	1	1										
8 Scarlet fever	Male												
	Female												
9 Whooping-cough	Male	4				3							
	Female	1	1		1								
10 Diphtheria	Male	4	1	1									1
	Female	8	3					2				2	
11 Erysipelas	Male												
	Female												
12 Tetanus	Male												
	Female												
13-22 Tuberculosis	Male	116	7	7	9	14	6	9	13	9	8	10	11
	Female	95	6	10	15	4	6	6	5	5	9	16	5
13 Tuberculosis of the respiratory system	Male	85	4	4	6	9	4	7	12	7	7	7	10
	Female	71	5	7	15	4	5	4	1	3	6	12	4
(a) With mention of occupational diseases of lungs	Male												
	Female												
(b) Without mention of occupational diseases of lungs	Male	72	3	4	5	7	3	6	10	7	6	7	9
	Female	65	5	6	15	3	5	3	1	3	5	12	4
(c) Unspecified site	Male	10	3	1	1	1	1	1	2		1	1	
	Female	6	2	1		1		1			1		

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TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH		Total	MONTHS											
			January	February	March	April	May	June	July	August	September	October	November	December
			Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
32	(d) Others under this title	18	2	2	1	2	1	2	2	1	1	2	2	2
	Other diseases due to spirochaetes	6	2	2	1	1	1	1	1	1	1	1	1	1
33	Influenza	1	1	1	1	1	1	1	1	1	1	1	1	1
	(a) With respiratory complications	27	3	2	3	4	6	2	2	1	1	1	2	2
	(b) Without respiratory complications	14	1	2	3	2	4	1	1	1	1	1	3	2
	(a) With respiratory complications	17	2	2	2	3	4	1	1	1	1	1	1	2
	(b) Without respiratory complications	7	1	2	2	1	2	2	2	1	1	1	1	1
34	Small-pox	10	1	2	1	1	2	2	1	1	1	1	1	1
	Small-pox	7	1	2	1	1	2	2	1	1	1	1	2	1
35	Measles	11	1	3	1	1	3	1	1	2	1	1	1	1
36	Acute poliomyelitis and polioencephalitis	8	1	1	1	1	2	1	1	2	2	1	1	1
37	Acute infectious encephalitis	7	1	1	1	1	2	1	1	1	3	1	1	1
38	Other diseases due to filterable viruses	2	1	1	1	1	2	1	1	1	1	1	1	1
	(a) Rabies	4	1	1	1	1	2	1	1	1	1	1	1	1
	(b) German measles	1	1	1	1	1	1	1	1	1	1	1	1	1
	(c) Chicken-pox	1	1	1	1	1	1	1	1	1	1	1	1	1
	(d) Others under this title	1	1	1	1	1	1	1	1	1	1	1	1	1
39	Typhus fever and typhus-like diseases	1	1	1	1	1	1	1	1	1	1	1	1	1
40	Ankylostomiasis	1	1	1	1	1	1	1	1	1	1	1	1	1
41	Hydatid disease	1	1	1	1	1	1	1	1	1	1	1	1	1
42	Other diseases due to helminths	1	1	1	1	1	1	1	1	1	1	1	1	1
43	Mycoses	1	1	1	1	1	1	1	1	1	1	1	1	1
44	Other infectious and parasitic diseases	7	1	1	3	1	1	1	1	1	1	2	1	1
	Other infectious and parasitic diseases	2	1	1	1	1	1	1	1	1	1	1	1	1

	Male	Female	Total	83	89	72	78	86	90	87	73	84	87	78	83
(a) Other venereal diseases	7	1	990	541	50	39	44	41	47	52	46	47	48	40	41
(b) Lymphogranulomatosis (Hodgkin's disease)	1	1	556	416	33	44	25	41	41	33	26	35	51	40	44
(c) Mumps	1	1	434	16	2	1	2	1	2	3	1	1	36	38	39
(d) Others under this title	1	1	270	5	1	1	23	25	22	26	30	19	28	15	18
CLASS II.—CANCER AND OTHER TUMOURS			160	10	12	14	13	19	15	14	10	15	18	10	10
45-55 Cancer and other malignant tumours	8	4	8	1	1	2	1	1	1	1	1	1	1	1	1
45 Cancer of the buccal cavity and pharynx	4	4	122	4	8	9	8	10	10	10	14	12	13	9	8
46 Cancer of the digestive organs and peritoneum	42	2	42	2	2	5	2	8	3	5	2	1	6	3	3
(a) Cancer of the oesophagus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
(b) Cancer of the stomach	31	16	31	31	3	3	3	4	2	3	2	1	8	2	2
(c) Cancer of the Duodenum	16	16	16	16	1	1	5	1	2	7	5	2	4	3	4
(d) Cancer of the rectum and anus	48	49	48	48	2	5	5	5	4	6	5	7	2	2	1
(e) Cancer of the intestines	27	23	27	27	4	4	2	3	1	4	3	1	2	1	2
(f) Cancer of the liver and biliary passages	23	29	23	23	2	5	2	2	3	2	1	3	3	2	3
(g) Cancer of the pancreas	4	4	4	4	1	1	1	2	2	2	1	2	3	1	1
(h) Cancer of the mesentery and peritoneum	3	3	3	3	1	1	1	2	2	2	1	2	3	2	3
(m) Cancer of other and unspecified sites	78	20	78	78	9	6	5	5	8	7	5	8	6	8	5
47 Cancer of the respiratory system	10	10	10	10	2	1	1	4	1	1	1	2	2	1	6
(a) Of the Larynx	2	2	2	2	1	4	2	5	4	5	3	3	3	5	3
(b) Of the lung	38	12	38	38	1	3	2	2	4	5	3	3	1	5	6
(c) Of the Mediastinum and other sites	30	6	30	30	6	3	1	2	3	1	1	4	3	3	1
48 Cancer of the uterus	53	24	53	53	3	9	4	5	5	7	6	1	2	4	2
(a) Of the cervix	29	29	29	29	5	1	1	2	2	6	2	1	1	1	2
(b) Of other and unspecified sites	32	32	32	32	6	5	1	3	3	1	4	1	2	3	3
49 Cancer of other female organs	32	32	32	32	6	5	1	3	5	2	2	3	2	3	3

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TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH		Total	MONTHS											
			January	February	March	April	May	June	July	August	September	October	November	December
86	Convulsions (under 5 years of age).....	Male	1	1	1	1	1	1	1	1	1	1	1	1
		Female	2	2	1	1	2	5	1	3	1	4	2	2
87	Other diseases of the nervous system	Male	25	1	1	1	1	3	4	1	1	1	1	1
		Female	15	1	1	1	1	3	1	1	1	1	1	1
	(a) Chorea	Male	2	1	1	1	1	1	1	1	1	1	1	1
	(b) Neuritis	Male	8	1	1	1	1	1	1	2	1	1	1	1
	(c) Paralysis agitans	Male	3	1	1	1	1	1	1	1	1	1	1	1
	(d) Disseminated sclerosis	Male	13	1	1	1	1	3	1	1	1	3	1	2
	(e) Others under this title	Female	7	1	1	1	1	1	3	1	1	1	1	1
		Male	2	1	1	1	1	1	1	1	1	1	1	1
		Female	5	1	1	1	1	1	1	1	1	1	1	1
88	Diseases of organs of vision	Male	1	1	1	1	1	1	1	1	1	1	1	1
		Female	1	1	1	1	1	1	1	1	1	1	1	1
89	Diseases of the ear and mastoid process	Male	1	1	1	1	1	1	1	1	1	1	1	1
	(a) Otitis and other diseases of the ear.....	Male	1	1	1	1	1	1	1	1	1	1	1	1
	(b) Diseases of the mastoid process	Male	1	1	1	1	1	1	1	1	1	1	1	1
		Female	1	1	1	1	1	1	1	1	1	1	1	1
CLASS VII.—DISEASES OF THE CIRCULATORY SYSTEM.....			2184	171	192	218	199	194	168	145	144	184	173	190
		Total	1443	121	132	129	119	123	101	95	102	128	118	128
		Male	741	50	60	89	80	71	67	50	42	56	55	62
		Female	1356	116	125	121	109	114	100	89	91	121	112	118
90-95	Diseases of the heart	Male	677	47	56	82	69	68	60	45	39	43	53	58
		Female	2	1	1	1	1	1	1	1	1	1	1	1
90	Pericarditis (acute rheumatic excluded)	Male	2	1	1	1	1	1	1	1	1	1	1	1
		Female	2	1	1	1	1	1	1	1	1	1	1	1
	(a) Chronic rheumatic pericarditis	Male	2	1	1	1	1	1	1	1	1	1	1	1
	(b) Others under this title	Male	2	1	1	1	1	1	1	1	1	1	1	1
		Female	2	1	1	1	1	1	1	1	1	1	1	1
91	Acute endocarditis (non-rheumatic)	Male	2	1	1	1	1	1	1	1	1	1	1	1
		Female	2	1	1	1	1	1	1	1	1	1	1	1

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111	Haemorrhagic infarction, congestion, oedema and thrombosis of the lungs	Male	15	2	1	2	1	39	24	39	17	29	23	27	1	1	1
	(a) Haemorrhagic infarction and thrombosis of the lungs	Female	17	2	3	1	3	26	16	26	14	15	18	18	3	3	3
	(b) Others under this title	Male	5	...	1	1	...	...	...	...	...	...	...	1	1	1	1
		Female	2	...	...	...	...	...	...	...	...	...	...	2	2	2	2
112	Asthma	Male	10	2	2	1	1	...	2	...	1	2	4	...	4	...	...
		Female	15	2	2	3	1	...	2	...	1	1	2	...	2	1	1
		Male	11	...	2	1	1	...	...	...	2	1	4	...	4	...	...
		Female	5	...	...	...	...	...	...	...	...	...	...	...	...	2	2
113	Pulmonary emphysema	Male	4	...	...	...	...	...	...	...	...	...	...	...	1	1	1
		Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
114	Other diseases of the respiratory system (tuberculosis excepted)	Male	14	2	1	1	...	...	1	...	2	2	3	...	3	1	1
	(a) Silicosis	Female	2	1	...	...	...	...	1	...	1	...	1	...	...	...	...
	(b) Other and unspecified forms of pneumoconioses	Male	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
	(c) Gangrene of lung	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d) Others under this title	Male	11	1	1	1	...	...	1	...	2	2	1	...	2	1	1
		Female	2	...	...	...	...	...	1	...	1	...	...	...	...	...	...
CLASS IX.—DISEASES OF THE DIGESTIVE SYSTEM																	
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils	Total	313	32	25	24	...	39	24	39	17	29	23	27	24	24	24
		Male	205	24	14	11	...	26	16	26	14	22	18	18	16	16	16
		Female	108	8	11	13	...	13	8	13	3	7	5	9	8	8	8
		Male	5	1	2	...	...	1	...	1	1	...	...	...	...	...	...
	(a) Diseases of the teeth and gums	Female	3	...	1	...	...	1	...	1	...	...	...	1	...	...	...
	(b) Septic sore throat	Male	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
	(c) Diseases of the pharynx and tonsils	Female	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Male	3	...	1	...	...	1	...	1	1	1	...	...	1	...	...
	(d) Others under this title	Female	2	...	...	...	...	1	...	1	...	...	...	...	...	...	...
		Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
116	Diseases of the oesophagus	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
117	Ulcer of the stomach or duodenum	Male	47	7	2	3	...	7	3	7	3	1	2	10	5	5	5
	(a) Stomach	Female	10	1	...	1	...	2	2	2	3	1	1	1	1	1	1
	(b) Duodenum	Male	27	4	...	3	...	3	2	3	3	1	2	8	2	2	2
		Female	3	...	2	1	...	...	...	...	...	...	...	...	...	...	...
		Male	20	3	2	...	...	4	2	4	2	...	1	2	5	5	5
		Female	7	1	...	...	...	2	2	2	...	...	...	...	...	...	...
118	Other diseases of the stomach	Male	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
119	Diarrhoea and enteritis (under 2 years of age)	Female	2	...	1	2	...	1	...	...	...	...	...	...	...	...	...
		Male	34	3	1	...											

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
(b) Ulceration of the intestines	Male .....	...	...	...	...	...	...	...	...	...	...	...	...
120 Diarrhoea and enteritis (2 years and over)	Female	1	1	2	2	...	1	1	2	1	1	...	...
(a) Diarrhoea and enteritis	Male	1	1	2	...	...	1	1	...	1	1	...	2
(b) Ulceration of the intestines	Female .....	...	...	1	...	...	...	...	1	...	...	...	2
121 Appendicitis	Male .....	...	1	1	1	4	...	...	1	1	...	...	...
122 Hernia, intestinal obstruction	Female	2	1	2	3	1	1	1	1	1	...	1	1
(a) Hernia	Male	5	2	...	2	1	2	2	3	1	5	1	3
(b) Intestinal obstruction	Female	16	4	3	1	...	1	2	2	1	1	3	2
123 Other diseases of the intestines	Male	7	3	2	1	1	1	2	1	...	3	1	1
124 Cirrhosis of the liver	Female	13	1	1	1	...	1	2	...	1	1	2	...
(a) With mention of alcoholism	Male	9	...	...	...	...	...	...	...	...	...	...	...
(b) Without mention of alcoholism	Female	2	1	1	1	...	1	2	...	1	1	...	...
125 Other diseases of the liver	Male	34	3	...	6	...	2	3	8	2	3	2	2
(a) Acute yellow atrophy	Female	8	1	...	1	...	...	...	...	2	1	1	2
(b) Others under this title	Male	6	...	...	4	...	...	1	...	...	...	...	...
126 Biliary calculi	Female	28	3	...	2	...	2	2	8	2	3	2	2
127 Other diseases of the gall-bladder and bile ducts	Male	8	1	...	1	...	...	...	...	2	1	1	2
128 Diseases of the pancreas	Female	2	...	1	...	1	...	...	...	1	...	...	...
129 Peritonitis without stated cause	Male	4	...	1	1	1	...	...	...	1	...	...	...
	Female	2	3	...	...	...	1	...	...	1	...	...	...
	Male	7	...	1	3	1	1	1	1	1	2	...	1
	Female	16	3	2	1	1	1	1	...	2	1	1	1
	Male	9	...	2	1	2	...	1	...	2	1	1	1
	Female	11	...	1	1	...	...	...	...	1	1	...	...
	Male	1	...	...	...	...	...	...	...	...	...	...	...
	Female	3	2	1	2	...	...	...	1	1	...	...	1
	Male	7	...	...	...	...	...	...	1	...	...	...	...
	Female	3	...	...	2	1	...	...	1	...	1	...	...

CLASS X.—DISEASES OF THE URINARY AND GENITAL SYSTEMS												
	Total	333	30	26	33	41	30	19	28	29	15	27
	Male	234	23	16	20	31	20	15	17	21	12	19
	Female	99	7	10	13	10	10	4	11	8	3	8
130	Acute nephritis	5	1	1	1	...	1	...	1	...	1	...
	Female	2	...	1	...	...	...	...	...	...	1	...
131	Chronic nephritis	129	16	5	9	13	9	9	7	11	8	14
	Female	72	5	6	11	6	7	4	8	5	2	7
132	Nephritis unspecified (10 years and over)	7	1	...	...	1	2	...	...	1	...	1
	Female	20	...	1	...	...	...	...	...	1	...	...
133	Other diseases of the kidneys and ureters	2	1	4	...	7	2	...	1	1	1	...
	Female	13	2	...	2	2	1	...	2	1	...	...
134	Calculi of the urinary passages	3	...	...	...	...	2	...	1	...	...	...
	Female	6	...	1	...	2	...	...	...	...	...	...
135	Diseases of the urinary bladder	2	1	...	1	...	...	...	...	2	...	...
	Female	2	...	...	...	1	...	...	...	...	...	...
136	Diseases of the urethra, urinary abscess, etc.	3	1	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...
	(a) Stricture of the urethra	1	...	...	...	...	...	...	...	...	...	...
	(b) Others under this title	2	...	...	...	1	...	...	...	...	...	...
137	Diseases of the prostate	64	2	6	9	9	6	5	6	7	3	4
	Female	...	...	...	...	...	...	...	...	...	...	...
138	Diseases of the male genital organs (non-venereal)	1	...	...	...	...	...	1	...	...	...	...
	Female	2	...	1	...	...	...	...	...	...	...	1
139	Diseases of the female genital organs (non-venereal)	1	...	...	...	...	...	...	...	...	...	1
	(a) Ovaries, Fallopian tubes and parametria	1	...	...	...	...	...	...	...	...	...	...
	(b) Uterus	1	...	1	...	...	...	...	...	...	...	...
	(c) Others under this title	...	...	...	...	...	...	...	...	...	...	...
CLASS XI.—DISEASES OF PREGNANCY, CHILDBIRTH AND THE PUERPERAL STATE												
	Total	25	1	3	1	4	2	1	2	3	1	2
140	Abortion with mention of infection	3	...	...	1	...	...	...	...	1	...	...
	(a) Spontaneous, therapeutic or of unspecified origin with mention of pyelitis	...	...	...	...	...	...	...	...	...	...	...
	(b) Spontaneous, therapeutic or of unspecified origin with mention of other infection	...	...	...	...	...	...	...	...	...	...	...
	(c) Self-induced	2	...	...	1	...	...	...	...	1	...	...
	(d) Induced by other person for non-therapeutic reasons	1	...	...	...	...	...	...	...	1	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
141 Abortion without mention of infection	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(a) Spontaneous, therapeutic or of unspecified origin with mention of haemorrhage, trauma or shock and toxæmia	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(b) Spontaneous, therapeutic or of unspecified origin with mention of haemorrhage, trauma or shock but not toxæmia	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(c) Spontaneous, therapeutic or of unspecified origin with mention of toxæmia, but not haemorrhage, trauma or shock	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(d) Spontaneous, therapeutic or of unspecified origin without mention of haemorrhage, trauma or shock or toxæmia	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(e) Self-induced	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(f) Induced by other person for non-therapeutic reasons	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
142 Ectopic gestation	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(a) With mention of infection	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(b) Without mention of infection	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
143 Haemorrhage of pregnancy, death prior to delivery	Female .....	..	..	..	..	..	..	..	1	..	..	..	..
(a) Placenta prævia	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(b) Premature separation of placenta	Female .....	..	..	..	..	..	..	..	1	..	..	..	..
(c) Others under this title	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
144 Toxæmias of pregnancy, death prior to delivery	Female .....	..	1	..	2	..	..	..	..	..	..	..	1

[illegible]

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
150 Other and unspecified conditions of childbirth and the puerperal state	Female	2	1	..	1	..	..	..	..	..	..	..	..
(a) Infection of breast during lactation	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(b) Psychosis of the puerperal state	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
(c) Others under this title	Female	2	1	..	1	..	..	..	..	..	..	..	..
CLASS XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE.....	Total	6	1	1	1	..	1	..	1	..	..	..	1
151 Carbuncle and furuncle	Male	1	1	..	1	..	1	..	1	..	..	..	1
152 Phlegmon and acute abscesses	Female .....	..	..	..	..	..	..	..	..	..	..	..	..
153 Other diseases of the skin and cellular tissue.....	Male	1	..	..	1	..	1	..	1	..	..	..	1
	Female	1	..	1	..	..	..	..	..	..	..	..	..
CLASS XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT	Total	7	..	..	1	1	1	1	1	..	1	1	1
154 Osteomyelitis and periostitis	Male	3	..	..	..	..	..	1	1	..	..	..	1
155 Other diseases of the bones (tuberculosis excepted)	Female	1	..	..	1	..	..	..	..	..	1	..	..
156 Diseases of the joints and other organs of movement	Male	1	..	..	..	..	..	..	..	..	..	..	..
(a) Diseases of the joints (tuberculosis and rheumatism excepted)	Female	2	..	..	..	1	..	..	..	..	..	1	..
(b) Others under this title	Male .....	..	..	..	..	..	..	..	..	..	..	..	..
	Female	2	..	..	..	1	..	..	..	..	..	1	..

CLASS XIV.—CONGENITAL MALFORMATIONS		Total	132	10	11	15	8	12	5	10	16	9	13	16	7
		Male	77	7	10	4	6	9	2	7	11	3	8	8	2
		Female	55	3	1	11	2	3	3	3	5	6	5	8	5
157	Congenital malformations	Total	77	7	10	4	6	9	2	7	11	3	8	8	2
	(a) Congenital hydrocephalus	Male	55	3	1	11	2	3	3	3	5	6	5	8	5
	(b) Spina bifida and meningocele	Male	10		2		1		1	2	1	1	1	1	
	(c) Anencephalus	Female	9		1			1			1	1	2	2	1
	(d) Congenital malformations of the heart	Male	4		1						1	2	1		1
	(e) Others under this title	Female	7	1							2		1		1
		Male	2		1						1				
		Female	1	1											
		Male	30	3	4	2	4	2	1	1	5	1	3	4	
		Female	13			3			1	1		1		5	2
		Male	31	4	2	2	1	7		4	3	1	3	3	1
		Female	25	1		8	2	2	2	2	2	2	2	1	1
CLASS XV.—DISEASES PECULIAR TO THE FIRST YEAR OF LIFE		Total	413	31	35	28	40	22	35	37	44	38	35	36	32
		Male	227	17	21	18	24	12	19	20	19	19	22	19	17
		Female	186	14	14	10	16	10	16	17	25	19	13	17	15
158	Congenital debility	Male	4			1	1	1	1						
	Premature birth	Female	6				1				1	1		2	1
	Injury at birth	Male	135	8	13	10	12	6	12	13	11	12	14	11	13
	(a) Intracranial or spinal haemorrhage	Female	112	11	10	7	9	4	11	8	13	9	7	13	10
	(b) Other intracranial or spinal injuries	Male	52	5	6	3	3	3	4	6	4	4	4	6	4
	(c) Others under this title	Female	37		2	2	4	4	4	5	7	4	4	1	2
	Other diseases peculiar to the first year of life	Male	26	2	2	1	2	3	2	2	2	3	2	5	2
	(a) Asphyxia (unspecified), atelectasis	Female	16			1	2	2	3	2		2	1	1	
	(b) Infection of the umbilicus, pemphigus and other infections	Male	2		1							1			2
	(c) Other specified diseases peculiar to the first year of life	Female	3						1				1	1	
		Male	1										1		
		Female	13	2		1	3			1	2	1	2	1	
		Male	10		1	1	1		1	1	1	4			
		Female	75	5	5	9	5	2	7	7	4	7	6	7	11
CLASS XVI.—SENILITY		Total	47	3	4	7	3	1	6	2	4	3	2	4	8
		Male	28	2	1	2	2	1	1	5		4	4	3	3
		Female	2												1
162	Senility	Male	47	3	4	7	3	1	6	2	4	3	2	4	8
	(a) With dementia	Female	28	2	1	2	2	1	1	5		4	4	3	3
	(b) Without dementia	Male	2			1									1
		Female	1												1
		Male	45	3	4	6	3	1	6	2	4	3	2	4	7
		Female	27	2	1	2	2	1	1	5		4	4	3	2

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
CLASS XVII.—VIOLENT OR ACCIDENTAL DEATHS	Total	42	34	42	53	68	59	72	69	43	59	65	70
163, 164 Suicides	Male	27	29	34	37	48	40	53	59	34	44	45	46
	Female	15	5	8	16	20	19	19	10	9	15	20	24
163 Suicide by poisoning	Male	9	4	8	3	4	2	5	9	8	2	7	3
	Female	3	1	1	...	2	2	2	...	1	1	2	2
(a) By corrosive substances, solid and liquid poisonings	Male	4	...	2	...	1	...	...	...	1	...	...	1
	Female	...	...	1	...	1	...	...	...	1	...	...	1
(b) By poisonous gas	Male	3	...	2	...	...	...	...	...	1	...	...	1
	Female	1	...	...	...	...	...	...	...	...	...	...	1
164 Suicide by other means	Male	1	...	...	...	1	...	...	...	...	...	...	...
	Female	2	...	1	...	1	...	...	9	7	2	7	2
(a) By hanging or strangulation	Male	55	4	6	3	3	2	5	9	7	2	7	2
	Female	13	1	...	...	1	2	2	2	1	1	2	1
(b) By drowning	Male	10	1	1	...	...	1	1	2	...	2	1	...
	Female	1	...	...	...	...	...	...	...	...	...	...	...
(c) By firearms or explosives	Male	6	...	...	...	1	...	1	2	1	...	1	1
	Female	4	...	...	...	...	2	1	3	5	...	4	...
(d) By cutting or piercing instruments	Male	29	3	2	2	2	1	3	3	...	1	1	1
	Female	7	1	2	...	1	...	1	1	...	...	1	...
(e) By jumping from high places	Male	5	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	1	...	...	...
(f) By crushing	Male	3	...	...	1	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...
(g) By other or unspecified means	Male	1	...	1	...	...	...	...	1	...	...	...	...
	Female	1	...	...	...	...	...	...	...	...	...	...	...
166-168 Homicides	Male	1	...	...	...	...	...	...	...	...	...	...	...
	Female	10	...	...	1	1	2	1	2	...	2	1	...
166 Homicide by firearms	Male	5	...	...	...	...	...	1	1	...	...	3	...
	Female	3	...	...	...	...	...	1	1	...	...	1	...
167 Homicide by cutting or piercing instruments	Male	3	...	...	...	...	...	...	...	...	...	3	...
	Female	1	...	...	...	1	...	...	...	...	...	...	...
168 Homicide by other or unspecified means	Male	1	...	...	...	...	...	...	1	...	...	...	...
	Female	6	...	...	1	...	2	...	1	...	2	...	...
169-195 Accidental deaths	Male	1	...	...	...	...	...	1	...	...	...	...	...
	Female	421	25	25	33	43	36	47	48	26	40	37	43
169 Railway accidents (excluding motor vehicles)	Male	159	4	7	16	18	17	16	9	9	14	15	22
	Female	19	...	2	2	2	2	2	2	3	...	1	3
	Female	4	...	...	1	1	...	...	...	...	...	...	2

170	Motor vehicle accidents	Male	132	4	5	8	3	13	13	17	16	10	17	11	15
	(a) Collisions with trains	Female	32	1	...	...	1	2	6	3	1	3	6	3	7
	(b) Collisions with street-cars	Male	13	1	...	2	1	1	...	2	1	1	...	2	3
	.....	Female	3	...	...	...	...	...	...	...	...	...	...	2	1
	.....	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	(c) Automobile accidents (excluding trains or street-cars)	Female .....	...	...	...	...	...	...	...	...	...	...	...	...	...
	(d) Motorcycle accidents (excluding automobiles).....	Male	118	3	5	6	1	12	17	17	15	9	17	9	12
	.....	Female	29	...	...	...	1	2	3	3	1	3	6	1	6
	.....	Male	1	...	...	...	1	...	...	...	...	...	...	...	...
171	Street-car and other road transport accidents.....	Female	3	1	...	...	1	...	...	1	1	...	...	...	...
	(a) Street-car accidents (excluding trains and motor vehicles)	Male	2	...	...	...	...	1	...	...	...	...	...	...	...
	(b) Others under this title	Female	1	1	...	...	...	...	...	...	...	...	...	...	...
	.....	Male .....	...	...	...	...	1	...	...	...	1	...	...	...	...
172	Water transport accidents	Female	2	...	...	...	...	1	...	1	...	...	...	...	...
	.....	Male	6	...	...	...	...	2	...	3	1	...	...	...	...
173	Air transport accidents	Female	3	...	...	...	...	...	...	2	...	...	...	1	...
	.....	Male	1	...	...	...	...	...	1	...	...	...	...	...	...
174	Accidents in mines and quarries	Female	15	...	2	...	1	1	...	2	1	1	2	1	3
	.....	Male .....	...	...	3	...	...	...	...	...	...	...	...	...	...
175	Agricultural and forestry accidents	Female	45	2	3	3	4	5	5	1	8	5	4	4	1
	(a) Accidents involving agricultural machinery and vehicles	Male	2	...	...	...	...	...	...	1	...	...	1	1	...
	(b) Injury by animals, in agriculture.....	Male	23	...	...	...	3	4	2	1	6	3	1	2	1
	(c) Other agricultural accidents	Female	1	...	...	1	1	...	...	1	...	1	2	1	...
	(d) Accidents involving forestry machinery and vehicles...	Male	10	...	1	...	...	...	3	...	1	1	...	1	...
	(e) Other forestry accidents	Female	9	2	1	2	...	1	...	...	1	1	1	...	...
	.....	Male .....	...	...	...	...	...	...	...	...	...	...	...	...	...
176	Other accidents involving machinery.....	Female	3	...	2	...	...	...	...	...	...	...	...	1	...
	.....	Male .....	...	...	...	...	...	...	...	...	...	...	2	...	1
177	Food poisoning	Female	14	1	1	1	4	2	1	...	2	...	2	...	...
	.....	Male	3	...	...	...	...	1	...	...	...	...	1	...	...
178	Accidental absorption of poisonous gas	Female	1	...	...	...	...	...	1	...	...	...	1	...	...
	(a) Coal and illuminating gas.....	Male	12	...	3	...	...	...	...	3	...	...	1	2	3
	(b) Motor vehicle exhaust gas.....	Female	3	...	...	...	...	...	...	1	...	...	1	1	1
	(c) Other carbon-monoxide gas.....	Male	2	...	1	...	...	...	...	1	...	...	...	1	2
	(d) Other poisonous gases	Female	5	...	...	...	...	...	...	...	...	...	...	...	...
179	Acute accidental poisoning by solids or liquids	Male	3	3
	Female
	Male	4	1	...	1	2
	Female	1	1

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CLASSIFICATION OF ACCIDENTAL DEATHS ACCORDING TO THE NATURE OF INJURY. THESE ACCIDENTAL DEATHS ARE CLASSIFIED ABOVE ACCORDING TO CIRCUMSTANCES INVOLVING THE ACCIDENT UNDER RUBRICS 169 TO 176, 178, 180, 181, 182, 183, 185, 186, 187 AND 193.

Accidental absorption of poisonous gas	Male	16	...	3	...	...	...	...
	Female	5	...	..	3	...	...	...
Accidental burns	Male	21	1	3	3	1	1	...
	Female	13	1	1	4	2	8	...
Accidental mechanical suffocation	Male	16	2	..	...	1	2	...
	Female	3	1	1	...	1	1	...
Accidental drowning	Male	45	...	...	2	6	7	...
	Female	17	...	...	1	1	1	...
Accidental injury by cutting or piercing instruments	Male	2	...	...	...	1	...	...
	Female	...	...	...	...	...	...	...
Accidental injury by fall	Male	66	3	5	3	9	7	...
	Female	54	7	2	...	6	3	...
Accidental injury by crushing	Male	209	7	11	15	16	29	...
	Female	44	...	...	...	2	2	...
Accidents due to electric currents	Male	3	...	...	...	...	1	...
	Female	...	...	...	...	...	...	...

TABLE 19.—CAUSES OF DEATH BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1949

CAUSES OF DEATH	Total	AGES															Total	Not stated										
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years			55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years and over
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male			Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
DEATHS—ALL CAUSES	990 597 393	112 53 59	8 4 4	2 1 1	3 2 1	2 1 1	3 2 3	2 1 1	4 2 2	17 13 4	11 6 5	13 8 5	18 8 10	17 10 7	33 20 13	46 32 14	81 52 29	108 73 35	119 83 36	121 81 40	108 64 44	63 30 33	64 29 35	18 8 10	7 5 2	2 2 ..		
CLASS I.—INFECTIOUS AND PARASITIC DISEASES	39 26 13	5 .. 5	1 1 ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	3 2 1	3 1 2	.. .. ..	.. .. ..	2 .. 2	4 3 1	5 5 ..	2 2 ..	5 5 ..	4 3 1	1 2 ..	1 2 ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..	.. .. ..
1 Typhoid fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2 Paratyphoid fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 Undulant fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6 Cerebrospinal meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8 Scarlet fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9 Whooping-cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10 Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11 Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12 Tetanus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13-22 Tuberculosis of the respiratory system	18	..	..	..	..	..	..	..	..	..	1	..	..	..	3	4	..	5	3	1	1	..	..	..	..	..
13 Tuberculosis of the respiratory system	7	1	..	..	..	..	..	..	..	1	1	..	..	1	1	4	..	4	1	1	1	..	..	..	..	..
(a) With mention of occupational diseases of lungs	6	1	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..
(b) Without mention of occupational diseases of lungs	16	1	3	4		
(c) Unspecified site	6	1	1	1	1	4	3	1	..	1		

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[illegible]

TABLE 19.—CAUSES OF DEATH BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	Ages																100 years and over	Not Stated								
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years			60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
84 Mental disorders and deficiency (general paralysis of the insane excepted)	Male
	Female	2	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Male	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85 Epilepsy	Male	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
86 Convulsions (under 5 years of age)	Male	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
87 Other diseases of the nervous system	Female	5	..	..	..	..	..	..	..	1	..	1	..	..	2	..	2	1	..	..	1	..	..	..	..	..
	Male	4	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..
	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(a) Chorea	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Neuritis	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(c) Paralysis agitans	Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
88 Diseases of organs of vision	Female	4	1	2	1
	Male	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Male .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
89 Diseases of the ear and of the mastoid process	Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Male	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Female .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CLASS VII.—DISEASES OF THE CIRCULATORY SYSTEM		Total	299	..	..	..	..	..	1	1	..	3	2	5	10	23	30	42	47	46	27	28	24	9	2	..
90-95 Diseases of the heart	Male	190	..	..	..	..	..	..	..	1	..	1	2	4	8	18	20	29	29	32	16	12	13	4	1	..
	Female	109	..	..	..	..	..	..	..	..	2	..	..	1	2	5	10	13	18	14	11	16	11	5	1	..
90-95 Diseases of the heart	Male	176	1	..	1	2	4	7	16	20	28	25	30	16	11	12	3	
	Female	99	2	1	2	5	10	12	15	13	10	14	10	4	1	..	

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TABLE 19.—CAUSES OF DEATH BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	AGES																	100 years and over	Not stated							
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male			Female	Male	Female	Male	Female	Male	Female
(b) Other diseases of the heart (rheumatic)	3																										
(c) Other diseases of the heart (non-rheumatic)	7																										
96 Aneurysm (heart and aorta excepted)	2																										
97 Arteriosclerosis (coronary or renal sclerosis or cerebral haemorrhage excepted)	5																										
98 Gangrene	4																										
99 Other diseases of the arteries	8																										
100 Diseases of the veins	1																										
101 Diseases of the lymphatic system	1																										
102 High blood pressure (idiopathic)	3																										
103 Other diseases of the circulatory system	1																										
CLASS VIII.—DISEASES OF THE RESPIRATORY SYSTEM	60	13	3	1	1	2																					
104 Diseases of the nasal fossae and accessory sinuses	35	6	1			1																					
105 Diseases of the larynx	25	7	2			1																					
106 Bronchitis																											
(a) Acute																											
(b) Chronic																											
(c) Unspecified																											
107 Bronchopneumonia	16	4	1																								
	17	6	1																								

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VITAL STATISTICS BRANCH

[illegible]

[illegible]

TABLE 19.—CAUSES OF DEATH BY SEX AND AGE IN EDMONTON, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	Ages																Total	Not Stated								
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years			60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years and over
CLASS XI.—DISEASES OF PREGNANCY, CHILDBIRTH AND THE PUERPERAL STATE																											
140 Abortion with mention of infection	4								1	1		1	1														
(a) Spontaneous, therapeutic or of unspecified origin with mention of pyelitis	3								1	1		1															
(b) Spontaneous, therapeutic or of unspecified origin with mention of other infection																											
(c) Self-induced	2								1			1															
(d) Induced by other person for non-therapeutic reasons	1									1																	
141 Abortion without mention of infection																											
(a) Spontaneous, therapeutic or of unspecified origin with mention of haemorrhage, trauma or shock and toxæmia																											
(b) Spontaneous, therapeutic or of unspecified origin with mention of haemorrhage, trauma or shock but not toxæmia																											
(c) Spontaneous, therapeutic or of unspecified origin with mention of toxæmia, but not haemorrhage, trauma or shock																											
(d) Spontaneous, therapeutic or of unspecified origin without mention of haemorrhage, trauma or shock or toxæmia																											
(e) Self-induced																											
(f) Induced by other person for non-therapeutic reasons																											

CLASS XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT					
Total	Male	Female			
154 Osteomyelitis and periostitis	Male	Female			
155 Other diseases of the bones (tuberculosis excepted)	Male	Female			
156 Diseases of the joints and other organs of movement	Male	Female			
(a) Diseases of the joints (tuberculosis and rheumatism excepted)	Male	Female			
(b) Others under this title	Male	Female			
CLASS XIV.—CONGENITAL MALFORMATIONS					
Total	21	18	1		
Male	12	11	1		
Female	9	7		1	
157 Congenital malformations	Male	Female			
(a) Congenital hydrocephalus	Male	Female			
(b) Spina bifida and meningocele	Male	Female			
(c) Anencephalus	Male	Female			
(e) Congenital malformations of the heart	Male	Female			
(d,f,g,h,m) Others under this title	Male	Female			
CLASS XV.—DISEASES PECULIAR TO THE FIRST YEAR OF LIFE					
Total	61	61			
Male	31	31			
Female	30	30			
158 Congenital debility	Male	Female			
159 Premature birth	Male	Female			
160 Injury at birth	Male	Female			
(a) Intracranial or spinal haemorrhage	Male	Female			
(b) Other intracranial or spinal injuries	Male	Female			

VITAL STATISTICS BRANCH

CAUSES OF DEATH		Total	AGES																100 years and over	Not stated								
			Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years			60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
161	(c) Others under this title	Male	5	5																								
	Other diseases peculiar to the first year of life	Female	3	3																								
	(a) Asphyxia (unspecified), atelectasis	Male	2	2																								
	(b) Infection of the umbilicus, pemphigus and other infections	Female	1	1																								
	(c) Other specified diseases peculiar to the first year of life	Male	1	1																								
CLASS XVI.—SENILITY		Female																										
		Total	17																									
		Male	10																									
		Female	7																									
162	Senility	Male	10																									
	(a) With dementia	Female	7																									
	(b) Without dementia	Male																										
		Female	10																									
CLASS XVII.—VIOLENT OR ACCIDENTAL DEATHS		Female	7																									
		Total	78	4	1	2	1	2	6	4	6	5	6	5	3	5	2	11	2	4	3	1	2	4	3	5		
		Male	59	1		1	1	2	6	2	6	5	6	5	3	5	2	11	1	3	2	1	1	2	3	1		
		Female	19	3	1	1					2	1	1	2	2				1	1	1	1	4	1	1	1		
163, 164	Suicides	Male	7								1			1	1		3											
163	Suicide by poisoning	Female	3																1									
	(a,b,c,d) By corrosive substances, solid and liquid poisonings	Male	2																									
		Female	1																									
		Male	1																									
		Female	1																									

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TABLE 20.—CAUSES OF DEATH BY SEX AND AGE IN CALGARY, BY PLACE OF RESIDENCE, 1949

CAUSES OF DEATH	Total	Ages														Not Stated and over											
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years		50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years	100 years
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
DEATHS—ALL CAUSES	1141	87	4	5	1	2	3	4	6	13	14	17	25	21	42	44	102	130	146	160	125	105	54	26	5	...	...
	656	55	3	2	1	2	1	3	3	3	10	7	15	15	26	26	70	86	89	86	62	56	23	9	3	...	...
	485	32	1	3	...	...	2	1	3	10	4	10	10	6	16	18	32	44	57	74	63	49	31	17	2	...	...
CLASS I.—INFECTIOUS AND PARASITIC DISEASES	30	2	1	...	...	1	...	1	...	...	2	1	1	...	2	4	4	4	4	2	1	1	1	...	...	...	...
	21	2	1	...	...	1	...	1	...	...	2	1	...	...	1	4	3	2	2	1	...	...	...	...	...	...	...
	9	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	2	...	...	3	...	...	...	...	...	...
1 Typhoid fever	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Paratyphoid fever	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 Undulant fever	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Cerebrospinal meningitis	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 Anthrax, malignant pustule	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8 Scarlet fever	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9 Whooping-cough	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10 Diphtheria	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11 Erysipelas	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 Tetanus	Male	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13-22 Tuberculosis	Male	7	...	...	...	...	...	...	...	...	1	...	...	...	1	1	1	...	1	1	...	1	...	...	...	...	...
	Female	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	1	...	1	...	...	...	...	...
13 Tuberculosis of the respiratory system	Male	6	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	1	...	1	...	...	...	...	...
	Female	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	1	...	1	...	...	...	...	...
(a) With mention of occupational diseases of lungs	Male
	Female

44	Other infectious and parasitic diseases	Male	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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TABLE 20.—CAUSES OF DEATH BY SEX AND AGE IN CALGARY, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	AGES																100 years and over	Not stated								
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years			60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female			Male	Female	Male	Female	Male	Female	Male	Female
91	Acute endocarditis (non-rheumatic)	1																									
	(a) Bacterial endocarditis (acute, subacute or unspecified)	1																									
	(b) Other acute or subacute endocarditis																										
	(c) Endocarditis (not specified under 45 years) ..																										
92	Chronic affections of the valves and endocardium	11																									
	(a) Specified valvular diseases (rheumatic)	9																									
	(b) Other specified valvular diseases (non-rheumatic)	6																									
	(c) Unspecified valvular lesions and endocarditis ..	3																									
93	Diseases of the myocardium	72																									
	(a) Acute myocarditis	77																									
	(b) Myocarditis (not specified under 45 years) ..	1																									
	(c) Chronic myocarditis and myocardial degeneration (rheumatic)	1																									
	(d) Chronic myocarditis (non-rheumatic)	62																									
	(e) Other myocarditis (not specified)	9																									
94	Diseases of the coronary arteries and angina pectoris	139																									
	(a) Diseases of the coronary arteries	54																									
		139																									
		53																									

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CLASS XI.—DISEASES OF PREGNANCY, CHILDBIRTH AND THE PUERPERAL STATE					
Total	2		1	1	
Female	1				
(a) Laceration, rupture or other trauma of pelvic organs and tissues	1				
(b) Other conditions of childbirth					
150 Other and unspecified conditions of childbirth and the puerperal state	1		1		
(a) Infection of breast during lactation					
(b) Psychosis of the puerperal state					
(c) Others under this title	1		1		
CLASS XII.—DISEASES OF THE SKIN AND CELLULAR TISSUE					
Total	1				1
Male	1				1
Female					
151 Carbuncle and furuncle	1				1
152 Phlegmon and acute abscesses					
153 Other diseases of the skin and cellular tissue					
CLASS XIII.—DISEASES OF THE BONES AND ORGANS OF MOVEMENT					
Total	1				1
Male					
Female	1				1
154 Osteomyelitis and preostitis					
155 Other diseases of the bones (tuberculosis excepted)					
156 Diseases of the joints and other organs of movement					
(a) Diseases of the joints (tuberculosis and rheumatism excepted)					
(b) Others under this title	1				1

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TABLE 20.—CAUSES OF DEATH BY SEX AND AGE IN CALGARY, BY PLACE OF RESIDENCE, 1949—Continued

CAUSES OF DEATH	Total	AGES																				Not stated						
		Under 1 yr.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years		80-84 years	85-89 years	90-94 years	95-99 years	100 years	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		Male	Female	Male	Female	Male	Female
(c) Lack of care of the new-born	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(d) Obstruction, suffocation or puncture by ingested objects	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(e) Other and unspecified objects	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
196-198 Operations of war and legal executions	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
196 Deaths of persons in military service during operations of war	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
197 Deaths of civilians due to operations of war	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
198 Legal executions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CLASS XVIII.—ILL-DEFINED AND UNKNOWN CAUSES OF DEATH	9	1	..	..	..	..	..	1	..	..	1	..	..	..	..	1	2	1	1	2	1	..	..	..	..	..	..	..
199 Sudden death	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
200 Ill-defined and unknown causes	3	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	2	..	1	1	1	..	..	..	..	..	..	..
(a) Ill-defined	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Found dead	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(c) Unknown or unspecified cause	6	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 21.—CLASSIFICATION OF ACCIDENTAL DEATHS ACCORDING TO THE NATURE OF INJURY. THESE ACCIDENTAL DEATHS ARE CLASSIFIED ACCORDING TO CIRCUMSTANCES INVOLVING THE ACCIDENT UNDER RUBRICS 169 TO 176, 178, 180, 181, 182, 183, 185, 186, 187 AND 193.

Int. list No.	CAUSES OF DEATH	Male	Female
	Accidental absorption of poisonous gas	16	5
174	Accidents in mines and quarries	1	..
178	Accidental absorption of poisonous gas	12	3
180	Conflagration	3	2
	Accidental burns	21	13
169	Railway accident (excluding motor vehicles)	2	..
170(c)	Automobile accidents (excluding trains or street-cars)	4	..
180	Conflagration	9	5
181	Accidental burns (conflagration excepted)	6	8
	Accidental Mechanical suffocation	16	3
170c	Automobile accidents (excluding trains or street-cars)	3	..
175c	Other agricultural accidents	2	..
182	Accidental mechanical suffocation	11	3
	Accidental drowning	45	17
170(c)	Automobile accidents (excluding trains or street-cars)	7	..
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles) .....	..	1
172	Water transport accidents	6	3
173	Air transport accidents	1	..
183	Accidental drowning	31	13
	Accidental injury by cutting or piercing instruments	2	..
175(a)	Accidents involving agricultural machinery and vehicles	1	..
185	Accidental injury by cutting or piercing instruments	1	..
	Accidental injury by fall	66	54
169	Railway accidents (excluding motor vehicles)	1	..
171(b)	Other road transport accidents (excluding street-trains and motor vehicles)	1	..
174	Accidents in mines and quarries	3	..
175(b)	Injury by animals, in agriculture	1	..
175(c)	Other agricultural accidents	1	..
186(a)	Accidental injury by fall	59	54
	Accidental injury by crushing	209	44
169	Railway accidents (excluding motor vehicles)	16	4
170(a)	Motor vehicle accidents—collisions with trains	13	3
170(c)	Automobile accidents (excluding trains or street-cars)	104	29
170(d)	Motorcycle accidents (excluding automobiles)	1	..
171(a)	Street-car accidents (excluding trains and motor vehicles)	1	..
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles)	1	1
174	Accidents in mines and quarries	11	..
175(a)	Accidents involving agricultural machinery and vehicles	22	1
175(b)	Injury by animals, in agriculture	9	1
175(c)	Other agricultural accidents	6	..
175(e)	Other forestry accidents	3	..
176	Other accidents involving machinery	14	..
186(b)	Accidental injury by crushing	8	2
193	Accidents due to electric currents	3	..

TABLE 22.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS IN CITIES OF 5,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE IN ALBERTA, 1949

Cities	All Deaths						Deaths in Institutions						Place of residence
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere			
		In Canada	In United States	In Canada	In United States			In Canada	In United States				
										In Canada	In United States		
Cities:													
Calgary	1340	287	7	87	8	1141	908	257	5	54	7	707	
Edmonton	1500	591	2	79	4	990	1210	562	2	43	1	690	
Lethbridge	235	93	1	31	3	175	183	85	....	22	1	121
Medicine Hat	185	40	2	15	....	158	136	38	1	10	....	107

TABLE 23.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE
IN ALBERTA 1949

Province	All Deaths						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Total for the Province	7096	128	26	111	30	7083	4184	86	12	79	20	4185

TABLE 24.—DEATHS FROM CERTAIN SPECIFIED CAUSES BY PROVINCE OF RESIDENCE, 1949

Int. list No.	Causes of Death	Canada *	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1-2	Typhoid fever†	47	1	...	3	3	33	2	2	2	...	1
6	Cerebrospinal meningitis	38	...	1	...	2	11	12	4	5	1	2
8	Scarlet fever	13	...	...	1	1	8	3	...	...	...	...
9	Whooping-cough	213	7	10	8	9	144	17	6	6	5	1
10	Diphtheria	84	5	1	1	1	47	6	4	2	12	5
11	Erysipelas	13	1	...	...	...	4	5	1	1	...	1
13	Tuberculosis of the respiratory system	3,588	222	20	149	163	1,565	616	182	154	156	361
14-22	Tuberculosis, other organs	707	63	2	35	32	333	70	42	31	55	44
24	Purulent infection and septicaemia	30	6	...	1	1	13	7	1	...	...	1
30	Syphilis	527	5	...	36	24	157	141	28	22	36	78
33	Influenza	1,100	29	11	49	58	458	244	78	95	41	37
34	Smallpox	...	...	...	...	...	...	...	...	...	...	...
35	Measles	233	4	3	23	28	51	35	15	33	19	22
36	Acute poliomyelitis and polioencephalitis	176	...	...	13	7	44	82	11	7	9	3
45-55	Cancer and other malignant tumours	16,731	292	111	864	572	4,447	6,002	944	905	957	1,637
56-57	Tumours, non-malignant and not specified	412	10	2	24	11	92	143	30	32	33	35
61	Diabetes mellitus	2,748	16	16	113	92	712	1,155	143	149	156	196
63	Diseases of the thyroid and parathyroid glands	266	3	...	16	7	51	109	14	16	18	32
73	Anaemias	325	2	9	19	14	67	137	20	15	16	26
74	Leukaemias and aleukaemias	610	4	2	28	14	115	243	46	43	44	71
77	Alcoholism	74	1	...	3	10	20	24	3	...	6	7
81	Meningitis (non-meningococcal)	302	23	2	13	14	157	47	14	6	16	10
83	Intracranial lesions of vascular origin	10,590	215	92	622	392	1,833	4,647	637	574	666	912
84	Mental disorders and deficiency (general paralysis of the insane excepted)	...	9	1	24	7	33	40	7	4	9	9
85	Epilepsy	143	7	5	19	12	77	76	8	16	12	16
89	Diseases of the ear and of the mastoid process	248	2	...	1	9	185	35	6	5	1	3
90-95	Diseases of the heart	247	361	249	1,550	1,197	7,742	14,788	2,022	1,840	2,033	3,755
96, 97, 99, 102	Diseases of the arteries	2,458	41	20	151	81	578	935	214	129	128	181
106	Bronchitis	398	14	1	32	10	107	126	26	35	22	25
107-109	Pneumonia	6,016	151	53	283	315	1,751	1,884	312	399	376	492
110	Pleurisy	119	1	...	8	5	44	34	8	6	5	8
111	Haemorrhagic infarction, congestion, oedema and thrombosis of the lungs	...	...	...	...	...	...	...	...	...	...	...
112	Asthma	410	9	3	25	11	151	86	30	24	32	39
115	Diseases of the buccal cavity and annexa and of the pharynx and tonsils	289	5	5	11	9	90	93	20	13	16	27
116-118	Diseases of the stomach	156	4	1	10	5	48	58	2	11	8	9
119-120	Diarrhoea and enteritis	1,083	18	8	35	27	322	351	53	66	64	139
121	Appendicitis	2,226	81	16	115	123	1,011	536	130	98	63	53
122	Hernia, intestinal obstruction	411	6	3	11	19	160	107	19	32	23	31
124	Cirrhosis of the liver	799	11	2	32	26	207	272	52	61	43	93
125-127	Other diseases of the liver	761	4	6	20	22	245	260	31	38	42	93
130-132	Nephritis	680	8	2	19	13	215	224	37	54	49	59
137	Diseases of the prostate	6,812	57	64	353	220	3,368	1,684	223	235	217	391
140-150	Puerperal causes	798	11	10	35	25	180	287	44	56	64	86
157	Congenital malformations	533	24	1	20	16	233	134	25	27	25	28
158-161	Diseases peculiar to the first year of life	2,374	35	21	114	95	717	833	129	147	132	151
		6,982	210	46	296	393	2,591	1,893	336	362	413	442

162	Senility	1,496	240	11	118	158	328	244	114	65	75	143
163-198--	Violent deaths	9,385	145	62	438	318	2,145	3,433	542	528	676	1,098
163, 164	Suicides	1,026	1	3	42	24	150	413	82	70	80	161
166-168	Homicides	171	4	...	8	8	23	62	13	14	15	24
169	Railway accidents (excluding motor vehicles)	198	2	3	6	5	32	71	15	20	23	21
170	Motor vehicle accidents	2,250	20	14	102	90	648	844	106	91	164	171
171	Street-car and other road transport accidents	70	..	...	2	1	25	14	8	2	5	13
172	Water transport accidents	237	3	1	25	10	46	88	14	13	9	28
173	Air transport accidents	110	...	...	6	1	41	39	15	1	1	6
174	Accidents in mines and quarries	109	5	...	19	...	23	31	3	...	15	13
175	Agricultural and forestry accidents	322	1	4	6	5	52	78	21	38	47	70
176	Other accidents involving machinery	129	1	1	2	6	32	38	8	9	17	15
180	Conflagration	294	2	1	26	13	87	82	19	14	19	31
187	Cataclysm	4,469	106	35	194	155	986	1,673	238	256	281	545
	Other violent deaths	3,835	169	42	188	150	1,072	1,079	250	229	272	384
	Other specified causes											
Total specified causes												
199, 200--Ill-defined and unknown causes												
123,023 2,532 914 5,929 4,721 33,962 43,239 6,865 7,046 11,237												
1,021 336 10 51 153 152 132 54 37 78												
All causes												
124,044 2,868 924 5,980 4,874 34,114 43,371 6,919 7,083 11,315												

*Yukon and Northwest Territories are not included. †Including paratyphoid.

TABLE 25.—DEATH RATES PER 100,000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1949

Int. list No.	Causes of Death	Canada*	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1-2	Typhoid fever†	0.3	0.3	...	0.5	0.6	0.8	†	0.3	0.2	...	0.1
6	Cerebrospinal meningitis	0.3	...	1.1	...	0.4	0.3	0.3	0.5	0.6	0.1	0.2
8	Scarlet fever	0.1	...	...	0.2	0.2	0.2	0.1	...	...	...	...
9	Whooping cough	1.6	2.0	10.6	1.2	1.7	3.7	0.4	0.8	0.7	0.6	0.1
10	Diphtheria	0.6	1.4	1.1	0.2	0.2	1.2	0.1	0.5	0.2	1.4	0.4
11	Erysipelas	0.1	0.3	...	...	...	0.1	0.1	0.1	0.1	...	0.1
13	Tuberculosis of the respiratory system	26.5	63.8	21.3	23.1	31.6	40.3	14.0	23.4	17.9	17.9	32.4
14-22	Tuberculosis, other organs	5.2	18.1	2.1	5.4	6.2	8.6	1.6	5.4	3.6	6.3	3.9
24	Purulent infection and septicaemia	0.2	1.7	...	0.2	0.2	0.3	0.2	0.1	...	...	0.1
30	Syphilis	3.9	1.4	...	5.6	4.7	4.0	3.2	3.6	2.6	4.1	7.0
33	Influenza	8.1	8.3	11.7	7.6	11.2	11.8	5.5	10.0	11.0	4.7	3.3
34	Smallpox .....	...	...	...	...	...	...	...	...	...	...	...
35	Measles	1.7	1.1	3.2	3.6	5.4	1.3	0.8	1.9	3.8	2.2	2.0
36	Acute poliomyelitis and polioencephalitis	1.3	...	...	2.0	1.4	1.1	1.9	1.4	0.8	1.0	0.3
45-55	Cancer and other malignant tumours	123.7	83.9	118.1	134.0	110.9	114.4	136.1	121.3	105.1	109.9	146.9
56-57	Tumours, non-malignant and not specified	3.0	2.9	2.1	3.7	2.1	2.4	3.2	3.9	3.7	3.8	3.1
61	Diabetes mellitus	20.3	4.6	17.0	17.5	17.8	18.3	26.2	18.4	17.3	17.9	17.6
63	Diseases of the thyroid and parathyroid glands	2.0	0.9	...	2.5	1.4	1.3	2.5	1.8	1.9	2.1	2.9
73	Anaemias	2.4	0.6	9.6	2.9	2.7	1.7	3.1	2.6	1.7	1.8	2.3
74	Leukaemias and aleukaemias	4.5	1.1	2.1	4.3	2.7	3.0	5.5	5.9	5.0	5.1	6.4
77	Alcoholism	0.5	0.3	...	0.5	1.9	0.5	0.5	0.4	...	0.7	0.6
81	Meningitis (non-meningococcal)	2.2	6.6	2.1	2.0	2.7	4.0	1.1	1.8	0.7	1.8	0.9
83	Intracranial lesions of vascular origin	78.3	61.8	97.9	96.4	76.0	47.2	105.4	81.9	66.7	76.5	81.9
84	Mental disorders and deficiency (general paralysis of the insane excepted)	1.1	2.6	1.1	3.7	1.4	0.8	0.9	0.9	0.5	1.0	0.8

TABLE 25.—DEATH RATES PER 100,000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1949—Continued

Int. list No.	Causes of Death	Canada *	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
85	Epilepsy	1.8	2.0	5.3	2.9	2.3	2.0	1.7	1.0	1.9	1.4	1.4
89	Diseases of the ear and of the mastoid process	1.8	0.6	....	0.2	1.7	4.8	0.8	0.8	0.6	0.1	0.3
90-95	Diseases of the heart	262.8	103.7	264.9	240.3	232.0	199.2	335.3	259.9	213.7	233.4	337.1
96, 97,												
99, 102	Diseases of the arteries	18.2	11.8	21.3	23.4	15.7	14.9	21.2	27.5	15.0	14.7	16.2
106	Bronchitis	2.9	4.0	1.1	5.0	1.9	2.8	2.9	3.3	4.1	2.5	2.2
107-109	Pneumonia	44.5	43.4	56.4	43.9	61.0	45.0	42.7	40.1	46.3	43.2	44.2
110	Pleurisy	0.9	0.3	....	1.2	1.0	1.1	0.8	1.0	0.7	0.6	0.7
111	Haemorrhagic infarction, congestion, oedema and throm- bosis of the lungs	3.0	2.6	3.2	3.9	2.1	3.9	1.9	3.9	2.8	3.7	3.5
112	Asthma	2.1	1.4	5.3	1.7	1.7	2.3	2.1	2.6	1.5	1.8	2.4
115	Diseases of the buccal cavity and annexe, and of the pharynx and tonsils	1.2	1.1	1.1	1.6	1.0	1.2	1.3	0.3	1.3	0.9	0.8
116-118	Diseases of the stomach	8.0	5.2	8.5	5.4	5.2	8.3	8.0	6.8	7.7	7.3	12.5
119-120	Diarrhoea and enteritis	16.5	23.3	17.0	17.8	23.8	26.0	12.2	16.7	11.4	7.2	4.8
121	Appendicitis	3.0	1.7	3.2	1.7	3.7	4.1	2.4	2.4	3.7	2.6	2.8
122	Hernia, intestinal obstruction	5.9	3.2	2.1	5.0	5.0	5.3	6.2	6.7	7.1	4.9	8.3
124	Cirrhosis of the liver	5.6	1.1	6.4	3.1	4.3	6.3	5.9	4.0	4.4	4.8	8.3
125-127	Other diseases of the liver	5.0	2.3	2.1	2.9	2.5	5.5	5.1	4.8	6.3	5.6	5.3
130-132	Nephritis	50.4	16.4	68.1	54.7	42.6	86.6	38.2	28.7	27.3	24.9	35.1
137	Diseases of the prostate	5.9	3.2	10.6	5.4	4.8	4.6	6.5	5.7	6.5	7.3	7.7
140-150	Puerperal causes	3.9	6.9	1.1	3.1	3.1	6.0	3.0	3.2	3.1	2.9	2.5
157	Congenital malformations	17.6	10.1	22.3	17.7	18.4	18.4	18.9	16.6	17.1	15.2	13.6
158-161	Diseases peculiar to the first year of life	51.6	60.3	48.9	45.9	76.2	66.7	42.9	43.2	42.0	47.4	39.7
162	Senility	11.1	69.0	11.7	18.3	30.6	8.4	5.5	14.7	7.5	8.6	12.8
163-198	Violent deaths	69.4	41.7	66.0	67.9	61.6	55.2	77.8	69.7	61.3	77.6	98.6
163-164	Suicides	7.6	0.3	3.2	6.5	4.7	3.9	9.4	10.5	8.1	9.2	14.5
166-168	Homicides	1.3	1.1	....	1.2	1.6	0.6	1.4	1.7	1.6	1.7	2.2
169	Railway accidents (excluding motor vehicles)	1.5	0.6	3.2	0.9	1.0	0.8	1.6	1.9	2.3	2.6	1.9
170	Motor vehicle accidents	16.6	5.7	14.9	15.8	17.4	16.7	19.1	13.6	10.6	18.8	15.4
171	Street-car and other road transport accidents	0.5	....	....	0.3	0.2	0.6	0.3	1.0	0.2	0.6	1.2
172	Water transport accidents	1.8	0.9	1.1	3.9	1.9	1.2	2.0	1.8	1.5	1.0	2.5
173	Air transport accidents	0.8	....	....	0.9	0.2	1.1	0.9	1.9	0.1	0.1	0.5
174	Accidents in mines and quarries	0.8	1.4	....	2.9	....	0.6	0.7	0.4	....	1.7	1.2
175	Agricultural and forestry accidents	2.4	0.3	4.3	0.9	1.0	1.3	1.8	2.7	4.4	5.4	6.3
176	Other accidents involving machinery	1.0	0.3	1.1	0.3	1.2	0.8	0.9	1.0	1.0	2.0	1.3
180	Conflagration	2.2	0.6	1.1	4.0	2.5	2.2	1.9	2.4	1.6	2.2	2.8
187	Cataclysm .....	....	....	....	....	....	....	....	....	....	....	....
	Other violent deaths	33.0	30.5	37.2	30.1	30.0	25.4	37.9	30.6	29.7	32.3	48.9
	Other specified causes	28.4	48.6	44.7	29.1	29.1	27.6	24.5	32.1	26.6	31.2	34.5
199, 200	Total specified causes	909.6	727.6	972.3	919.2	914.9	873.7	980.3	882.4	764.0	809.0	1008.7
	Ill-defined and unknown causes	7.5	96.6	10.6	7.9	29.7	3.9	3.0	6.9	2.1	4.2	7.0
	All causes	917.1	824.1	983.0	927.1	944.6	877.6	983.2	889.3	766.1	813.2	1015.7

*Yukon and Northwest Territories are not included. †Including paratyphoid. ‡Less than 0.1 per 100,000 population.

TABLE 26.—PRINCIPAL CAUSES OF DEATH BY NUMBERS AND RATES FOR EACH YEAR OF THE LAST DECENNIAL PERIOD

CAUSE OF DEATH	1949		1948		1947		1946		1945		1944		1943		1942		1941		1940	
	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population
Diseases of the Heart	2033	233	1896	224	1756	213	1721	214	1663	199	1534	186	1550	194	1483	184	1394	177	1086	137
Cancer	957	109	975	115	878	107	860	107	830	100	781	84	748	94	784	97	712	90	759	95
Diseases of the Arteries	128	14	28	3	117	14	102	12	138	16	121	14	116	14	97	12	86	11	517	65
Violent Deaths (Suicides excepted)	596	68	593	70	484	59	456	56	472	57	484	59	588	73	483	58	524	67	415	52
Pneumonia (all forms)	376	43	362	42	374	45	362	45	369	44	379	46	497	51	335	41	473	47	376	47
Pulmonary tuberculosis	155	17	200	23	215	26	233	29	200	25	229	27	224	28	214	26	254	32	232	29
Influenza	41	4	36	4	72	8	89	11	58	7	128	15	153	19	75	9	276	22	255	32
Nephritis	217	24	219	25	197	24	215	26	255	31	257	31	284	36	260	32	255	32	217	27
Appendicitis	23	2	34	4	36	4	46	5	42	5	54	6	77	9	69	8	91	11	96	12
Suicides	80	9	84	9	67	8	100	12	76	9	57	7	79	10	86	10	103	13	96	12
Cerebral Haemorrhage	666	76	568	67	523	63	503	62	513	62	454	55	472	59	450	56	501	64	116	15
Diabetes Mellitus	156	17	134	15	119	14	119	14	143	17	120	14	116	14	106	13	122	15	90	11
Diarrhoea and Enteritis	63	7	93	10	106	13	128	15	87	10	120	14	116	14	106	9	99	13	92	12
Puerperal Causes	25	2	29	3	22	3	32	4	48	5	31	3	52	6	43	5	54	7	69	9
Whooping Cough	5	.....	11	1	9	1	19	2	43	5	42	5	11	1	12	1	23	3	56	7
Scarlet Fever .....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	9	1	7	.....	11	1	6	1	9	1
Diphtheria	12	1	10	1	.....	1	7	.....	9	1	5	.....	12	.....	11	1	6	1	12	2
Typhoid and Paratyphoid	19	2	7	.....	21	3	8	.....	2	.....	10	1	19	2	1	.....	5	1	3	.....
Measles	9	1	28	3	7	1	8	.....	6	.....	1	.....	.....	.....	2	.....	30	4	6	1
Poliomyelitis .....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	1	.....	.....	.....	.....	.....	8	1	4	.....

TABLE 27.—MARRIAGES IN THE PROVINCE OF ALBERTA, BY MONTHS, 1949

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
Edmonton	2503	113	123	130	197	203	312	243	273	252	242	223	192
Calgary	1826	84	101	100	143	142	231	201	185	177	159	146	157
Lethbridge	392	20	14	23	27	32	49	29	36	51	41	37	33
Medicine Hat	317	13	20	27	33	20	38	27	16	43	30	22	28
Red Deer	152	6	4	11	17	8	12	21	6	10	23	23	11
Drumheller	79	4	4	4	6	9	4	8	7	10	8	5	10
Wetaskiwin	66	2	1	4	5	3	13	5	5	9	8	8	3
Rural Districts	3702	163	167	129	263	212	514	426	341	270	477	460	280
Total for the Province.....	9037	405	434	428	691	629	1173	960	869	822	988	924	714

TABLE 28.—MARITAL STATUS OF BRIDEGROOMS AND BRIDES IN ALBERTA, 1949

Total for the Province	Total Marriages		Marriages between						Per cent. of Bridegrooms who were			Per cent. of Brides who were		
	9037	7550	Bachelors and		Widowers and		Divorced men and		Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced
			Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women						
								</						

TABLE 29.—MARRIAGES—AGES OF BRIDEGROOMS AND BRIDES, ALBERTA, 1949

[illegible]

[illegible]

Mormons	174	9	2	1	2	1	1	1	1	1	5	111	1	1	1	1	1	1	1	1	12	1	27	1	1					
Non-denominational	360	22	16	1	1	1	10	1	1	1	18	4	1	167	28	5	13	1	1	31	1	41	1	1						
Oriental religions	32										2											1								
Pentecostal Assemblies	96	6	1	2	1	2	2	1	1	1	5		1	3	52		2			2		9	2	1						
Plymouth Brethren	1																													
Presbyterians	465	74	20			1	5	1	1	1	43	1	9	4	2	149				39	1	106	1	2						
Reformed Churches (Christian)	33	2	1								2	1	1			1	22			1		1	1	1						
Roman Catholics	1763	1	86	23	1		41	4	1	61	1	64	9	28	1	4	30	1	1	1207	2	184	1	4						
Salvation Army	8		1										1							1	3	1	1	1						
Society of Friends																														
Spiritualists	1																					1								
Swedenborgians	1																													
Unitarians	1	1																												
United Church of Canada	2703	3	300	1	56	2	34	5	3	14	143	5	35	12	1	10	1	85	3	207	7	1743	1	2						
Other religions	6	1																				1	4							
Non-religious denom- inations	58	6					1			1	6		1			2	3			9	1	10	16							
Unspecified or unknown	5	1								2										1		1								
Total brides	9037	33	1080	6	319	13	386	61	8	356	6	18	39	782	98	20	25	201	258	33	100	5	409	30	1	1	2749	14	30	7

TABLE 32.—DIVORCES AND NULLITIES BY JUDICIAL DISTRICTS
FOR THE YEAR 1949 IN ALBERTA

Judicial Districts	Divorces			Nullities		
	Number of Divorces	Granted to Husband	Granted to Wife	Number of Nullities	Granted to Husband	Granted to Wife
Edmonton	266	113	153	....	....	....
Calgary	241	98	143	2	....	2
Lethbridge	34	23	11	....	....	....
Medicine Hat	21	10	11	....	....	....
Peace River	7	4	3	....	....	....
Grande Prairie	5	3	2	....	....	....
Hanna	2	1	1	....	....	....
Red Deer	9	6	3	....	....	....
Drumheller	3	2	1	....	....	....
Macleod	2	1	1	....	....	....
Wetaskiwin	4	1	3	....	....	....
Total.....	594	262	332	2	....	2

DIVORCES IN ALBERTA SINCE THE PASSING OF THE ACT

Year	Granted to Husband	Granted to Wife	Total
1919	3	3	6
1920	74	26	100
1921	53	37	90
1922	80	49	129
1923	57	32	89
1924	66	53	119
1925	59	42	101
1926	79	75	154
1927	83	66	149
1928	91	84	175
1929	77	71	148
1930	64	87	151
1931	69	87	156
1932	68	81	149
1933	56	79	135
1934	62	106	168
1935	74	135	209
1936	74	135	209
1937	102	139	241
1938	105	162	267
1939	104	163	267
1940	119	154	273
1941	135	176	311
1942	179	201	380
1943	190	223	413
1944	245	243	488
1945	302	273	575
1946	494	480	974
1947	404	478	882
1948	302	357	659
1949	262	332	594

TABLE 33.—BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS AND BY PLACE OF RESIDENCE OF MOTHERS, ALBERTA, 1949

	Total	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Total for the Province	1235	112	82	128	123	94	91	114	112	81	102	94	102

TABLE 34.—LEGITIMATE AND ILLEGITIMATE BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS) IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1949

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total for the Province	1235	621	614	932	469	463	303	152	151

TABLE 35.—DEATHS OF INDIAN CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES BY SEX IN ALBERTA, BY PLACE OF RESIDENCE, 1949

Int. list No.	Causes of Death	Total	Male	Female
	ALL CAUSES	146	87	59
6	Cerebrospinal meningitis .....	...	...	...
8	Scarlet fever .....	...	...	...
9	Whooping-cough	2	1	1
10	Diphtheria .....	...	...	...
11	Erysipelas .....	...	...	...
13	Tuberculosis of the respiratory system	2	1	1
14-22	Tuberculosis, other organs	3	1	2
27	Dysentery	1	1	...
30	Syphilis	1	...	1
33	Influenza	9	7	2
35	Measles	4	2	2
36	Acute poliomyelitis and polioencephalitis .....	...	...	...
64	Diseases of the thymus gland .....	...	...	...
81	Meningitis (non-meningococcal)	3	3	...
86	Convulsions	3	1	2
89	Diseases of the ear and of the mastoid process..	...	...	...
105	Diseases of the larynx	1	...	1
106	Bronchitis .....	...	...	...
107	Bronchopneumonia	19	15	4
108, 109	Pneumonia	35	19	16
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils	1	1	...
116-118	Diseases of the stomach .....	...	...	...
119	Diarrhoea and enteritis	16	13	3
130	Acute nephritis .....	...	...	...
157	Congenital malformations	5	4	1
	(a) Congenital hydrocephalus .....	...	...	...
	(d) Congenital malformations of the heart....	4	3	1
	(b, c, e) Others under this title	1	1	...
158	Congenital debility	5	2	3
159	Premature birth	15	6	9
160	Injury at birth	3	3	...
161	Other diseases peculiar to the first year of life....	8	2	6
166-168	Homicides .....	...	...	...
169-195,				
197	Other violent deaths	3	2	1
	Other specified causes	4	1	3
199, 200	Ill-defined and unknown causes of death.....	3	2	1

[illegible]

[illegible]

**CLASS III.—RHEUMATISM, DISEASES OF NUTRITION
GENERAL AND VITAMIN DEFICIENCY DISEASES
AND OF THE ENDOCRINE GLANDS OTHER**

[illegible]

[illegible]

[illegible]

[illegible]

CLASSIFICATION OF ACCIDENTAL DEATHS ACCORDING TO THE NATURE OF INJURY. THESE ACCIDENTAL DEATHS ARE CLASSIFIED ABOVE ACCORDING TO CIRCUMSTANCES INVOLVING THE ACCIDENT UNDER RUBRICS 169 TO 176, 178, 180, 181, 182, 183, 185, 186, 187 AND 193.

Accident description	Male	Female	Total
Accidental absorption of poisonous gas	1	0	1
Accidental burns	1	0	1
Accidental mechanical suffocation	1	0	1
Accidental drowning	1	0	1
Accidental injury by cutting or piercing instruments	1	0	1
Accidental injury by fall	1	0	1
Accidental injury by crushing	1	0	1
Accidents due to electric currents	1	0	1

[illegible]

TABLE 38.—POPULATION BIRTHS, MARRIAGES, DEATHS, AND RATES FOR THE YEARS 1905-1949

Year	Population	Number of Births	Rate Birth	No. of Births Received to Date	Number of Marriages	Marriage Rate	Number of Deaths	Death Rate	Infantile Death Rate per 1,000 Births	Puerperal Death Rate per 1,000 Births	Rate of Natural Increase
1905	.....	421	.....	4,032	187	.....	114	.....	.....	.....	.....
1906	185,000	3,003	20.41	4,702	927	6.77	1,091	7.36	90.00	.....	13.04
1907	236,000	4,732	20.05	5,900	1,907	8.08	1,578	6.68	100.27	6.33	13.36
1908	266,000	5,973	22.45	7,495	2,032	7.63	2,188	8.22	126.57	6.02	14.22
1909	301,000	6,897	22.91	7,937	2,384	7.92	2,662	8.81	.....	.....	14.07
1910	336,000	8,321	24.49	9,443	3,086	9.18	3,526	10.49	129.49	8.63	14.00
1911	374,000	8,813	23.56	10,732	3,630	9.70	3,618	9.67	134.46	9.75	13.88
1912	400,000	10,284	25.71	12,565	4,429	11.07	4,232	10.58	124.75	8.26	15.13
1913	429,000	11,871	28.47	14,434	5,053	12.12	4,432	10.63	120.47	7.07	17.84
1914	459,000	13,685	30.75	16,155	4,623	10.39	4,417	9.32	100.54	6.13	21.43
1915	480,000	13,452	28.90	15,679	4,202	9.06	3,588	7.73	87.9	5.79	21.26
1916	496,000	13,331	27.87	15,557	4,230	8.53	4,058	8.18	90.5	7.20	18.69
1917	508,000	13,576	27.01	15,668	4,270	8.54	4,047	8.09	87.30	6.48	18.92
1918	522,000	14,890	28.52	16,769	4,048	7.76	7,924	13.86	107.10	5.51	11.86
1919	522,000	14,890	28.52	16,127	4,718	9.03	5,507	9.33	110.30	6.44	14.62
1920	565,000	16,565	29.32	18,451	5,110	9.03	5,675	9.15	93.70	8.38	17.57
1921	588,000	16,414	27.89	18,104	4,661	7.92	4,940	8.39	85.65	7.24	19.50
1922	592,000	16,163	26.44	17,325	4,272	6.99	5,281	8.62	91.93	6.68	17.83
1923	593,000	15,153	25.75	16,183	4,177	6.99	4,843	8.06	90.54	5.50	18.75
1924	597,000	14,598	24.74	15,569	4,160	7.50	4,907	8.30	82.40	6.18	16.42
1925	602,000	15,014	25.02	15,796	4,363	7.27	4,717	7.86	72.90	5.76	16.16
1926	608,000	14,455	23.79	15,408	4,498	7.40	5,156	8.49	81.63	5.82	15.31
1927	633,000	14,897	24.03	15,565	4,707	7.58	5,059	8.16	74.51	6.38	15.87
1928	658,000	15,692	24.79	17,446	5,776	9.12	5,699	9.00	76.50	6.75	15.79
1929	684,000	16,924	26.19	17,628	6,004	9.29	6,239	9.65	77.40	7.26	16.54
1930	708,000	17,649	26.74	18,423	5,334	8.08	5,396	8.33	63.57	6.46	18.41
1931	732,000	17,252	23.57	18,108	5,142	7.02	5,302	7.24	69.38	5.04	16.32
1932	740,000	16,990	22.96	17,788	5,054	6.83	5,521	7.46	58.68	3.76	15.50
1933	748,000	16,123	21.33	16,915	5,389	7.10	5,346	7.07	59.90	4.43	14.24
1934	756,000	16,236	21.10	17,002	6,053	7.87	5,337	6.93	54.89	4.99	14.01
1935	770,000	16,183	21.0	16,962	6,010	7.7	5,729	7.3	57.8	4.2	14.0
1936	772,782	15,786	20.4	16,423	6,020	7.8	6,147	8.0	60.0	5.8	12.5
1937	778,000	15,903	20.4	16,492	6,345	8.2	6,261	8.0	63.0	4.9	12.4
1938	783,000	15,891	20.3	16,582	6,973	8.9	5,871	7.5	51.0	4.3	12.8
1939	789,000	16,470	20.9	16,903	7,838	9.9	5,789	7.3	46.0	3.5	13.6
1940	790,000	17,359	21.8	17,725	8,782	11.8	6,203	7.8	48.0	3.9	14.1
1941	796,169	17,308	21.7	17,590	8,470	10.7	6,385	8.0	51.0	3.6	13.7
1942	805,000	18,317	22.7	16,559	9,034	11.2	6,091	7.5	38.0	2.3	15.2
1943	792,000	19,290	24.3	19,487	7,771	9.8	6,524	8.2	42.0	2.7	16.1
1944	818,000	19,373	23.7	19,486	7,299	8.9	6,320	7.7	46.0	1.6	16.0
1945	826,000	19,939	24.1	20,068	7,310	8.8	6,454	7.8	43.0	2.4	16.2
1946	803,330	22,184	27.6	23,283	9,478	11.8	6,601	8.2	42.5	1.4	19.3
1947	822,000	24,631	30.0	25,699	8,797	10.7	6,543	8.0	37.0	.9	22.0
1948	846,000	24,075	28.5	24,075	8,844	10.5	6,987	8.0	39.0	1.2	20.2
1949	871,000	24,935	28.7	.....	9,037	10.4	7,083	8.2	33.0	1.0	20.5

TABLE 39.—DEATHS AND DEATH RATES FROM PUERPERAL CONDITIONS, 1949

	Births	Deaths from Puerperal Conditions	Death Rate per 1,000 Births
Whole Province	24,955	25	1.0
City of Edmonton	4,353	4	.9
City of Calgary	3,143	2	.6
Small Cities	1,427	3	2.1
Rural	14,797	15	1.0
Indian	1,235	1	.8

RATIO OF MALE TO FEMALE BIRTHS, AND OF BIRTHS TO DEATHS

Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1905	1,059	3.13	1928	1,064	2.75
1906	1,094	2.07	1929	1,042	2.71
1907	1,075	2.96	1930	1,027	3.21
1908	1,077	2.73	1931	1,075	3.25
1909	1,086	2.59	1932	1,052	3.08
1910	1,065	2.69	1933	1,053	3.01
1911	1,103	2.43	1934	1,032	3.04
1912	1,084	2.43	1935	1,055	2.81
1913	1,053	2.67	1936	1,049	2.57
1914	1,081	3.30	1937	1,019	2.38
1915	1,000	3.74	1938	1,046	2.70
1916	1,063	3.29	1939	1,046	2.85
1917	1,061	3.25	1940	1,033	2.79
1918	1,069	1.88	1941	1,054	2.71
1919	1,074	2.56	1942	1,058	3.02
1920	1,055	2.92	1943	1,041	2.96
1921	1,055	3.32	1944	1,060	3.06
1922	1,034	3.06	1945	1,061	3.08
1923	1,072	3.13	1946	1,036	3.36
1924	1,036	2.97	1947	1,061	3.76
1925	1,036	2.97	1948	1,049	3.44
1926	1,053	2.80	1949	1,051	3.52
1927	1,065	2.94			

